Disk-drive shortages are keeping some buyers of Intel-based servers waiting for their systems to arrive. PAGE 10

James P. Witkins, Freddie Mac's new CIO, says his priorities include data management and automating financial reporting. PAGE 16

COMPUTERWORLD

THE VOICE OF IT MANAGEMENT WWW.COMPUTERWORLD.COM JANUARY 24, 2005 VOL. 39 NO. 4 $5 COPY

Retailers Drag Feet On RFID Initiatives

Wal-Mart CIO details progress, calls for wider adoption; other execs say it isn't a priority yet

BY CAROL SLIWA
NEW YORK

"Test it. Don't wait. Don't be last," Wal-Mart Stores Inc. CIO Linda Dillman urged industry colleagues last week after giving them a progress report on her company's use of RFID technology. But while Wal-Mart's embrace may be driving its suppliers to adopt RFID, fellow retailers have been slow to pick up the torch.

INSIDE
Tesco takes a pragmatic approach to RFID
PAGE 45

And Dillman's exhortation, as well as similar ones by other early adopters, left many attendees at the National Retail Federation's annual convention and expo unconvinced of the need to move more quickly. Fifteen retail executives interviewed at the conference said they have yet to pilot radio frequency identification technology, and they have no plans to make RFID a priority this year.

"It's not on the front burner right now," said Kip Tindell, CEO at The Container Store, a chain based in Copell, Texas. "It's too easy to learn exactly what to do and what not to do by watching Wal-Mart take

RFID, page 45

Corralling WEB SERVICES

Wisconsin CIO Matt Miszewski

Trimble Navigation CIO Robert Denis

IN [illegible] The IT organizations of Dade County, Fla., Thomson Learning and Master Brand Cabinets are starting to use Web services in major development and integration projects. But there are still questions about whether the technology is mature enough. Heather Havenstein reports.

HR GETS Strategic

Savvy human resources departments are using IT to help optimize the corporate talent pool. Page 33

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PeopleSoft Users See Hope in Oracle Plan

Vendor says it will fuse product lines by 2008, lays out road map for supporting acquired apps

BY MARC L. SONGINI

Oracle Corp.'s somewhat sketchy blueprint outlining its vision for PeopleSoft's products and customers drew a hopeful response from several users last week.

In a webcast open to PeopleSoft users, Oracle executives explained how the company plans to eventually integrate Oracle and PeopleSoft products in its effort to retain the PeopleSoft accounts it inherited.

Oracle also revealed its strategy for continuing to support and update PeopleSoft products. Officials said support programs for most users will continue until at least 2013, long after Oracle expects to start shipping a new set of modular, Java-based applications, dubbed Project Fusion. Those products are slated to ship by 2008 and will combine the best of the Oracle and PeopleSoft technologies, according to Oracle.

MORE ONLINE
SAP offers "safe passage" to PeopleSoft users who also run its applications:
QuickLink 52001
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During the webcast, Oracle CEO Larry Ellison pledged that customers won't be forced off applications and that upgrades will be "fairly graceful."

Ellison said Oracle's support

Oracle, page 14

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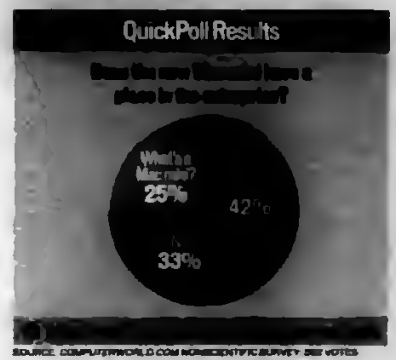

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IT Compensation on the Rise
CAREERS: Robert Half Technology's newly released salary guide indicates that 2005 is shaping up to be a promising year. The staffing firm's Katherine Spencer Lee takes a look at some IT skills likely to be in demand in the months ahead. QuickLink 51675

Plan for a Network Attack
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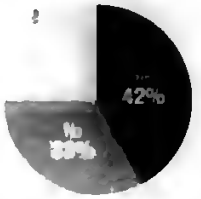

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"All of the pieces of what will be our ERP system [will] be available as Web services," says Wisconsin CIO Matt Miszewski

Web Services Spread Slowly Into IT

But more work needs to be done to address architectural, process and security issues.

By Heather Havenstein

INDEPTH DADE COUNTY, Fla., has more than 40 Web services in production that are used to integrate data to build citizen-facing applications, like those for online fee payment and access to building-inspection reports.

In November, Dade County rolled out the first release of a call center application built to provide answers to common questions through Web services interfaces to criminal justice, waste management and public works back-end systems, said Carmen Suarez, systems support manager at the county's enterprise technology services department.

Dade County is one of a growing number of organizations that have successfully lassoed Web services as a way to link dissimilar systems more quickly and cost-effectively than they could with traditional, hard-coded integration. Now, many are attempting to address the architectural changes required to exploit Web services to develop flexible applications that can be changed as business requirements evolve.

Web services emerged in the midst of the IT recession during the early 2000s as a way to integrate systems using standards — Simple Object Access Protocol, Web Services Description Language and the Universal Description, Discovery and Integration specification — along with key XML technology.

The Web services concept was slow to make its way to corporate IT operations because vendors debated the path of the standards. But the demand for such capabilities forced a peace among rival vendors and led to IT efforts to take advantage of Web services, despite architectural and security challenges.

For example, the state of Wisconsin last year used Web services to integrate six procurement systems in less than two weeks, according to CIO Matt Miszewski. And Navitaire Inc., a Minneapolis-based application service provider that houses reservation systems for low-cost airlines, expects to slash infrastructure costs in half by leveraging application development tools and Web services in Microsoft Corp.'s .Net platform to migrate its applications. Navitaire is migrating to .Net from the HP3000 system, which Hewlett-Packard Co. stopped selling last year.

Almost two-thirds of all major Web services deployments today are focused on integration projects, according to research firm Gartner Inc. And analysts are forecasting that 40% of all business software purchased in 2007 will be Web-services-enabled. With that in mind, some companies are embarking on a path toward the Holy Grail of Web services — reusing business processes to build composite applications. But as they do, some are running into architectural challenges.

For example, Dade County is trying to find a way to manage Web services and create a directory for developers to access Web services for reuse in future applications.

"I am looking for a way to manage the change that will be involved with the Web services," Suarez said. The county needs to be able to "monitor performance and understand relationships between Web services and back-end systems," she added.

On the SOA Path

Using Web services for point-to-point integration is a baby step toward building a service-oriented architecture (SOA) that can manage Web services, said Jason Bloomberg, an analyst at ZapThink LLC in Waltham, Mass. SOAs support the security, business process management and performance monitoring needed to use Web services to quickly build new applications by tying together components of existing ones.

"An SOA is more of a challenge because it involves architectural change," said Bloomberg. "The goal is an architecture that is flexible enough so the business side can rework business applications over time."

Companies building an SOA first need to outline a strategic vision for Web services, suggested Tyson Hartman, director of .Net solutions at Seattle-based Avanade Inc., a systems integrator formed by Accenture Ltd. and Microsoft. The plan should detail how a company will measure the success of using Web services. "One of the important questions is, What is the cost benefit of using a Web services solution for a given business problem?" Hartman said.

For example, Avanade often works with companies that have multiple custom-written applications doing the same function for different delivery mechanisms. Collapsing those channels to support all the delivery vehicles, such as desktop and wireless systems, with a common back end could result in significant savings, Tyson said.

However, companies that have deployed a dozen or more Web services are "getting to the point where they realize this is getting out of hand," said Anne Thomas Manes, an analyst at Burton Group in Midvale, Utah. Such companies can benefit from registries and management technology to gain control of the Web services, she said.

Experts do say that those enterprises making a successful leap to full-fledged SOAs

Management Matters

Through 2006, more than 90% of internal and [illegible]-to-business service-oriented business applications will face Web services outages, performance [illegible] and failures resulting from insufficient management.

WHAT YOU CAN DO

- **Map your technology choices to your business needs.** Some organizations may need to manage Web services in basic ways, such as monitoring interactions like an address lookup from a database. Others may face complex issues like load balancing and [illegible] to meet service-level agreements with trading partners.
- **Find Web services middleware technology** that [illegible] and can be used not only for management of Web services projects [illegible] but also for lifecycle management of [illegible] with the integrated development environment.
- **Select technology that provides security and management** [illegible] package only if you can establish ROI [illegible] three years.

can expect a substantial payoff.

For example, Wisconsin expects its SOA effort to allow "all of the pieces of what will be our ERP system to be available as Web services," said Miszewski. "As people build new applications, they will be able to tap into the ERP Web services themselves." Wisconsin will use an enterprise service bus, which uses messaging technology and routing to tie systems together. The bus, from Cape Clear Software Inc., will provide an integration infrastructure that anchors a single instance of ERP for the whole state.

Web Services and BPM

For many companies, business process management is front and center in Web services efforts. For example, MasterBrand Cabinets Inc. plans to use Web services and business processes to ease efforts to integrate ERP systems from companies it has acquired over the years.

"Our organization was very application-centric," said Dave Mewes, vice president and CIO at the Jasper, Ind.-based cabinetmaker. "What we've tried to do is retrain our organization to think of processes horizontally — across the enterprise. We don't discuss applications; we discuss needs."

Thomson Learning, a professional and academic testing company in Stamford, Conn., homed in on its business processes when it built Web services interfaces into applications for scheduling tests and transmitting test scores to its partners. Before exposing the application programming interfaces of its applications as XML, Thompson did an analysis to break down processes into various elements, such as the name of the test taker, the location of the test and the payment method. An orchestration tier routes the elements to the legacy application or new service to be consumed.

Thompson, which began transmitting test scores last year and will launch test scheduling early this year, has a much better understanding of the business process flow using Web services than it did when it used traditional enterprise application integration technology, said Christopher Crowhurst, vice president and principal architect. "We can measure the performance of them all very cleanly," he said.

Security Issues

Enterprises ramping up Web services work must also tackle increasingly complex security issues, especially if their use of Web services extends beyond internal firewalls.

For example, National Student Clearinghouse (NSC) this year will begin a pilot in which it will use Web services to transmit college transcripts to its partners. The Herndon, Va.-based nonprofit now uses passwords, usernames and Secure Sockets Layer encryption to securely transmit college degree verifications to employers and background screeners. More security will be required as more personal data is included in communications with clients over time.

A username-and-password system is a "less-than-ideal security environment," said Mark Jones, NSC's vice president of marketing. "You've got your core access to a lot of very important data for anybody who wants to or knows how to go after it. In an ideal world, we would digitally sign the whole payload and identify who is coming in based on a digital certificate."

RouteOne LLC, a Web services veteran, wrestled with security early on and eventually turned to a third party for help.

RouteOne, a joint venture of DaimlerChrysler Services North America LLC, Ford Motor Credit Co., General Motors Acceptance Corp. and Toyota Financial Services Corp. that was formed to provide a Web-based credit application management system, has built its entire business on XML and Web services.

"Security was a gimme for us [because] it is the dealers' customer data going across," said T.N. Subramaniam, chief architect at RouteOne in Farmington Hills, Mich. "We tried to do it in software by rolling our own, but it was too slow for the volume of messaging."

The company now uses Cambridge, Mass.-based DataPower Technology Inc.'s secure gateway product, a wire-speed XML-aware networking device that digitally encrypts and signs the entire payload of RouteOne's messages without affecting performance, Subramaniam said. **52069**

ONLINE Q&A

EMI Music's Seth Brady discusses an SOA project under way there.

QuickLink 52112
www.computerworld.com

Technology Can't Fill All SOA Gaps

SOME OF THE ENTERPRISES that are deftly moving toward a service-oriented architecture to exploit the potential of Web services are confronting challenges technology can't always conquer. Users say Web services still suffer from a lack of clear metadata definitions and the need for sometimes significant IT cultural changes.

Trimble Navigation Ltd., a Sunnyvale, Calif.-based maker of Global Positioning System products, opted to use an SOA framework from Cordys Inc. to integrate the ERP systems of its five business units. But as the project has moved forward, it has been slowed by the lack of standard metadata definitions, which define and describe applications' data, said Robert Denis, vice president and CIO at Trimble.

Denis said that the company must create its own process for managing the disparate ERP systems' metadata because of a lack of tools that can automate the operation. The complex ERP network includes packages from SAP AG, Oracle Corp. and Siebel Systems Inc., some of which were gained via acquisitions.

Trimble learned that even using Web services, it isn't possible for the company to "gracefully and quickly" integrate systems gained in several acquisitions over the past couple of years because of the metadata problems, Denis said. "There's too much fluidity around data objects, [and] we fall back into our own nomenclature and begin to define business objects," he said. "Customer definitions are the most complex challenges for us. We support very different businesses. Our customers are major accounts, channels and end users, so it is difficult to have a one-size-fits-all definition." Until industry standards for metadata management mature, the company must tackle the metadata issues outside the SOA project, he said.

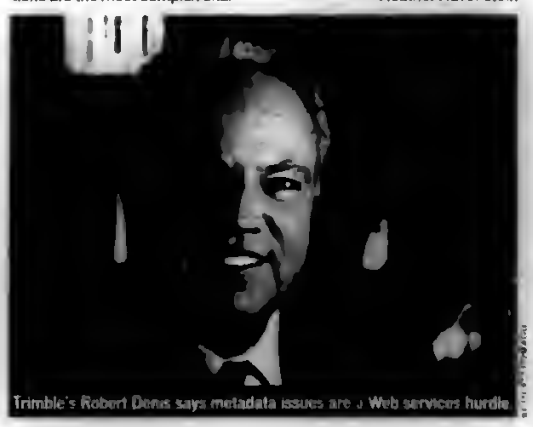
Cultural Change

Navitaire, an application service provider that houses reservation systems for low-cost airlines, early this year will begin exposing applications as Web services to allow customers to more easily customize them, said Mark Learning, Navitaire's vice president of production development. "They may decide they want to sell insurance through their booking process," Learning said. "They can re-engineer the application using a Web service so their basic booking flow continues as is, but they may hook off and book insurance and have that whole process be completed in the overall booking flow."

Learning noted that the migration to Web services required some cultural changes along the way, such as getting customers to change their mind-set about the way they use the system.

"Today, a customer gets a huge amount of data and filters through that in their own time," Learning said. "There are some challenges in getting the adopters of Web services to make more requests in smaller chunks so they are not sending large amounts of data over the wire."

– Heather Havenstein



Trimble's Robert Denis says metadata issues are a Web services hurdle.

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SOURCE: GARTNER INC., STAMFORD, CONN.

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Thompson, which began transmitting test scores last year and will launch test scheduling early this year, has a much better understanding of the business process flow using Web services than it did when it used traditional enterprise application integration technology, said Christopher Crowhurst, vice president and principal architect. "We can measure the performance of them all very cleanly," he said.

Security Issues

Enterprises ramping up Web services work must also tackle increasingly complex security issues, especially if their use of Web services extends beyond internal firewalls.

For example, National Student Clearinghouse (NSC) this year will begin a pilot in which it will use Web services to transmit college transcripts to its partners. The Herndon, Va.-based nonprofit now uses passwords, usernames and Secure Sockets Layer encryption to securely transmit college degree verifications to employers and background screeners. More security will be required as more personal data is included in communications with clients over time.

A username-and-password system is a "less-than-ideal security environment," said Mark Jones, NSC's vice president of marketing. "You've got your core access to a lot of very important data for anybody who wants to or knows how to go after it. In an ideal world, we would digitally sign the whole payload and identify who is coming in based on a digital certificate."

RouteOne LLC, a Web services veteran, wrestled with security early on and eventually turned to a third party for help.

RouteOne, a joint venture of DaimlerChrysler Services North America LLC, Ford Motor Credit Co., General Motors Acceptance Corp. and Toyota Financial Services Corp. that was formed to provide a Web-based credit application management system, has built its entire business on XML and Web services.

"Security was a gimme for us [because] it is the dealers' customer data going across," said T.N. Subramaniam, chief architect at RouteOne in Farmington Hills, Mich. "We tried to do it in software by rolling our own, but it was too slow for the volume of messaging."

The company now uses Cambridge, Mass.-based DataPower Technology Inc.'s secure gateway product, a wire-speed XML-aware networking device that digitally encrypts and signs the entire payload of RouteOne's messages without affecting performance, Subramaniam said. 52080

ONLINE Q&A
EMI Music's Seth Brady discusses an SOA project under way there.
QuickLink 52112
www.computerworld.com

Technology Can't Fill All SOA Gaps

SOME OF THE ENTERPRISES that are deftly moving toward a service-oriented architecture to exploit the potential of Web services are confronting challenges technology can't always conquer. Users say Web services still suffer from a lack of clear metadata definitions and the need for sometimes significant IT cultural changes.

Trimble Navigation Ltd., a Sunnyvale, Calif.-based maker of Global Positioning System products, opted to use an SOA framework from Cordys Inc. to integrate the ERP systems of its five business units. But as the project has moved forward, it has been slowed by the lack of standard metadata definitions, which define and describe applications' data, said Robert Denis, vice president and CIO at Trimble.

Denis said that the company must create its own process for managing the disparate ERP systems' metadata because of a lack of tools that can automate the operation. The complex ERP network includes packages from SAP AG, Oracle Corp. and Siebel Systems Inc., some of which were gained via acquisitions.

Trimble learned that even using Web services, it isn't possible for the company to "gracefully and quickly" integrate systems gained in several acquisitions over the past couple of years because of the metadata problems, Denis said. "There's too much fluidity around data objects, [and] we fall back into our own nomenclature and begin to define business objects," he said. "Customer definitions are the most complex challenges for us. We support very different businesses. Our customers are major accounts, channels and end users, so it is difficult to have a one-size-fits-all definition." Until industry standards for metadata management mature, the company must tackle the metadata issues outside the SOA project, he said.

Cultural Change

Navitaire, an application service provider that houses reservation systems for low-cost airlines, early this year will begin exposing applications as Web services to allow customers to more easily customize them, said Mark Learning, Navitaire's vice president of production development. "They may decide they want to sell insurance through their booking process," Learning said. "They can re-engineer the application using a Web service so their basic booking flow continues as is, but they may hook off and book insurance and have that whole process be completed in the overall booking flow."

Learning noted that the migration to Web services required some cultural changes along the way, such as getting customers to change their mind-set about the way they use the system.

"Today, a customer gets a huge amount of data and filters through that in their own time," Learning said. "There are some challenges in getting the adopters of Web services to make more requests in smaller chunks so they are not sending large amounts of data over the wire."

—Heather Havenstein

AT DEADLINE

Wachovia to Send Tech Jobs Overseas

Wachovia Corp. has confirmed its plan to outsource some technology jobs overseas. The plan is part of an initiative to slow expense growth by up to $1 billion by 2007. Wachovia hopes outsourcing can cut IT spending by $300 million over three years. The bank said 30% to 40% of the savings will be used to improve customer-facing systems such as ATMs and online services.

DaimlerChrysler Restructures IT

DaimlerChrysler AG said it's restructuring its IT management organization to better align IT with various business units and to help drive revenue growth and cost efficiencies. The size of DaimlerChrysler's 1,800-person North American IT staff won't change, said Karenann Terrell, newly named vice president and CIO of the Chrysler and Mercedes-Benz North America divisions.

Intel Updates Centrino Package

Intel Corp. will unveil a new version of its Centrino platform for notebook computers today. The Centrino package includes a processor, its companion chip set and a wireless board. The new version updates all three and adds a chip set for improving graphics capabilities.

Borland Buys Consulting Firm

Borland Software Corp. has acquired TeraQuest Metrics Inc., a consulting firm that specializes in improving corporate application development, workforce management and operations processes. TeraQuest has developed Capability Maturity Model guides for process improvement. Details of the acquisition weren't disclosed. TeraQuest has become part of Borland's services unit.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY GOSSIP BY MARK HALL

MATTHEW PAUL BAER

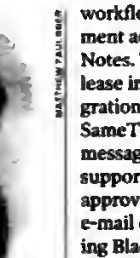
Freelance Techs Bid For Business . . .

. . . at an "eBay for IT services." That's how Jeffrey Leventhal, CEO of Computer Repair Systems LLC in Boca Raton, Fla., is pitching his online operation, through which nearly 7,700 qualified IT technicians in all 50 states respond to requests for everything from firewall and router configuration to data backup and recovery. Clients, meaning you IT managers out there, outline a service you need — say, end-user training on new software at an oil refinery in Wyoming as well as a sales office in midtown Manhattan. You describe your needs and wait for the bids, which usually arrive within a couple of hours or even just a few minutes, according to Leventhal. You can specify what skills you want — such as a Microsoft Certified Software Engineer — and how much you're willing to pay. And you don't need to take a wild guess at what you'll have to shell out for a given service, because ComputerRepair.com posts a near-real-time chart of high, low and average costs for various tasks. Leventhal says clients who register on the site give his company $11 for every work order, and the techs remit 10% of their fees to ComputerRepair.com. Soon the site will post photos of all the techs offering their services, just in case you like your IT help to be neat and trim or freaky and geeky.

$81.34 Average hourly cost for end-user training at ComputerRepair.com last week.

Boost Lotus Notes performance . . .

. . . by avoiding the unnecessary security imposed by VPNs on remote clients. So advises Steven Birchfield, CEO of Automation Centre LLC in Tucson, Ariz. Despite the fact that Notes by default encrypts data at both the client and server, Birchfield says some users continue to funnel Notes packets through a virtual private network — dinging performance by about 25%. So stop it already! But this week, you can also use Automation Centre's upgraded Tracker 7 workflow management add-on to Notes. The new release includes integration of IBM's SameTime instant messaging tool and supports workflow approvals via most e-mail clients, including BlackBerry devices. Tracker 7 starts at about $110,000 for 300 users.



Generate LAN maps quickly and explore . . .

. . . the networking terrain from performance gaps to security gaffes. LAN Surveyor 9 ships this week from Neon Software Inc. in Lafayette, Calif. The network management software automatically builds a map of devices attached to your LANs, using vendor icons to identify what's what. It also displays color-coded lines indicating the expected performance levels between, for example, your switches and routers. According to Craig Isaacs, Neon Software's president, the new release uses three techniques to authenticate a device trying to attach to your network. "If a node does not meet certain vulnerability standards, it's kept off the network," he says. Pricing starts at $495.

Keep your eye on the Internet activities . . .

. . . of your workers as well as their e-mail and instant messaging machinations with Stellar Internet GEM (short for "global employee management"), which is due for release next month from Stellar Technologies Inc. in Naples, Fla. Stellar President Dan Innis says the software captures information about the online activities of end users and stores it in a central database. By archiving all communications, you can ensure compliance with virtually all government regulations and help protect your employees from harassment, be claims. You can also limit where and when users can go online. Innis advises IT managers to run a trial without telling workers that they're being watched. That will determine whether you have a problem with people spending too much time goofing around online. But if you do roll out the product, be says, "make sure you tell the employees it's happening." That will send a signal to workers to police themselves. Corporatewide pricing starts at $30,000.

Web metrics is muddled by the use . . .

. . . of multiple data sources, argues Jason Palmer, vice president of products at Portland, Ore.-based WebTrends, a division of NetIQ Corp. He says Web site marketing managers get fed information from the usual suspects, such as Google, Yahoo and MSN, as well as in-house tools. But nothing brings all the data together in a meaningful way, Palmer contends. Until (you guessed it) now. He claims that WebTrends 7, available this week, lets you apply your company's business logic to mountains of Web data. He says you can use the new release to determine how effective paid rankings are on search sites such as Google by showing conversion rates from where you're ranked to how much revenue you get. Big enterprises will pay about $10,000 for the software. **52042**

THE BRAINS TO BACK IT UP.

PATHLIGHT VX

Visit ***www.adic.com/pvx*** to get your free GlassHouse white paper
by W. Curtis Preston, *Evaluating Disk-Based Backup Solutions.*

adic

Intelligent Storage™

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Disk-Drive Demand May Be Slowing Some Server Shipments

HP user told that delivery of ProLiant server could take more than six weeks

BY PATRICK THIBODEAU

DEMAND FOR certain types of disk drives used on Intel-based servers may be running ahead of industry supply. At least that's been the case for Hewlett-Packard Co., which has been forced to delay shipments of some servers.

HP customer Al Angarita, director of IT and administration at the Baltimore Community Foundation in Maryland, an organization that distributes and manages millions of dollars in charitable funds, placed an order for two ProLiant servers on Dec. 29.

Angarita said that in follow-up telephone calls to HP customer service last week, he was told that his servers may not arrive until Feb. 11 because of a lack of hard drives.

"I love HP and Compaq servers — that's the sad part," Angarita said. "But I can't say it's been a smooth ordering process."

Early last year, HP faced problems in filling some customer orders as a result of supply chain problems. The problems were blamed for the poor performance of its Enterprise Servers and Storage Group in the quarter that ended July 31, which led to the firing of three top sales executives [QuickLink 48806].

HP last week declined to discuss the latest problem because it's in the "quiet period" before the release of its latest financial results.

HP spokesman Don Gentile said the earlier supply chain problems "are now behind us" and that "geoerically," the company can face supply and demand issues in any quarter.

"What we're experiencing is reflective of strong customer acceptance of our products and demand for those products," said Gentile.

Industrywide Shortage?

Computerworld anonymously called HP customer service to inquire about availability of a ProLiant server similar to what Angarita ordered, the ML 350 with a 36GB, 15k-rpm hard drive. It was told by a representative that "there is a seveo-week back order" on the drive and that there's "an industrywide shortage."

Angarita said servers with larger and more-expensive disk drives are available. That was also *Computerworld*'s experience: It was told a 146GB, 10k-rpm drive was available.

Demand has been rising at the same time that disk drive makers are moving to oew products, said John Donovan, an analyst at market research company TrendFocus Inc. in Los Altos, Calif.

"There is clearly some pent-up demand that these guys can't meet," be said, referring to the hard drive makers.

Although larger-capacity drives are available, the 36GB, 15k-rpm drive is popular with enterprises, said Woody Monroy, a spokesman for Seagate Technology LLC in Scotts Valley, Calif. The disk drive maker last week reported $1.85 billioo in sales for all its drives in its most recent quarter, up from $176 billioo a year earlier. "We shipped a record number of drives," he said.

Monroy said it's possible there could be a backlog on a particular drive, but he had no specifics. A spokeswoman at Dell Inc. said the company wasn't experiencing delays on its main servers. **52098**

Symantec Adds Devices to Filter E-mail

Products blend antispam and antivirus functions

BY JAIKUMAR VIJAYAN

The dramatic growth in the volume of computer viruses and spam e-mail is continuing to push demand for products that can filter and block messages before they clog servers and networks. This week, Symantec Corp. will add to the choices available to users by releasing two security appliances that blend antispam and virus-protection technologies.

The Mail Security 8100 and 8200 devices integrate antivirus, content-filtering and traffic management capabilities with the antispam technology that Cuptertino, Calif.-based Symantec acquired last year when it bought software vendor Brightmail Inc.

The 8200 is designed to restrict or block messages coming from servers that send spam. It also can check messages for viruses and scan inbound and outbound content for prohibited material, said Daniel Freeman, a product manager at Symantec.

The 8100 is targeted at larger customers, and it includes many of the features that are in the 8200, with one major addition. The 8100 offers a patent-pending function that's designed to control the flow of e-mail by identifying spam servers and slowing the rate at which they can send messages to a corporate network, said Freeman.

The 8200 starts at $1,995, and the 8100 has a base price of $4,995.

The multifunction nature of the new appliances makes them interesting, said Tom MacArthur, a principal at Storbase Corp. The Wsltham, Mass.-based systems integrator has found the 8200 to be fast, effective and easy to manage during tests, MacArthur said.

Several other companies offer similar products. For instance, Alpharetta, Ga.-based CipherTrust Inc. markets e-mail security appliances, while U.K.-based Sophos PLC sells software with the same functionality.

In addition, vendors such as MessageLabs Inc. in New York and FrontBridge Technologies Inc. in Marina del Rey, Calif., offer e-mail filtering services.

Where Symantec has an edge is in the Web-based management functions that are supported by its appliances, said Jonathan Penn, an analyst at Forrester Research Inc. **52093**

7-Eleven Plans Mobile Upgrades In 5,800 North American Stores

BY MATT HAMBLEN

7-ELEVEN INC. said last week that it will roll out nearly 12,000 new ruggedized handheld computers from Symbol Technologies Inc. at its 5,800 stores in North America as part of a plan to keep workers untethered as they track inventory and place orders.

Dallas-based 7-Eleven this year plans to deploy two of Symbol's MC3000 devicss in each store, along with a mobile terminal made by NEC Corp., said Keith Morrow, vice president of information systems at the convenience store chain. NEC's Mobile Operations Terminal is a modified laptop PC that will be used to order merchandise.

Symbol's MC3000

Symbol introduced the MC3000 this month and demonstrated it at last week's National Retail Federation show in New York. The handheld is based on Windows CE and priced from $1,195 to $2,200, said Brian Viscount, a product manager at the Holtsville, N.Y.-based vendor.

7-Eleven will replace DOS-based Symbol handhelds with the MC3000, which has a color screen and gives workers more mobility because data can be transferred to and from the device via an in-store wireless network, Morrow said. Older models had to be put in a docking station to transmit data.

The retail chain tested a dozen devices from a variety of vendors before settling on the Symbol and NEC hardware, according to Morrow.

"Reliability of the devices is very critical," he noted. "We did a lot of drop and spill tests – everything you can imagine."

7-Eleven officials declined to comment on the cost of the rollout. Symbol placed the value of its deal with 7-Eleven for the MC3000 at $8.5 million.

IDC analyst Kevin Burden said he sees a trend toward the use of handhelds that are durable but not as damage-resistant as top-end models, such as Symbol's MC9000. Handheld makers have realized that companies like 7-Eleven can get by with devices that are less rugged – and less expensive – than the ones carried by truck drivers and other heavy-duty users, Burden said. **52094**

IBM's Net Profit Beats Expectations

IBM posted a quarterly net profit that beat Wall Street's recently raised target, as solid year-end product sales were buoyed by a weaker U.S. dollar. CEO and Chairman Samuel Palmisano described the results as "IBM's strongest fourth quarter ever."

Bug Warning Issued For Explorer 6.0.0

A computer security researcher and an antivirus company are warning about an unpatched hole in Microsoft Corp.'s Internet Explorer Web browser. The bug could allow a remote attacker to bypass security warnings and download malicious content onto vulnerable systems. The hole affects Internet Explorer 6.0.0, including the version released with Windows XP Service Pack 2. Microsoft said the claims are "inaccurate and misleading."

AMD's Quarterly Profit Streak Ends

Advanced Micro Devices Inc. saw its short streak of quarterly profits come to an end. The company's fourth-quarter sales growth fell because it had to price its flash memory products competitively. AMD Chairman, President and CEO Hector Ruiz didn't mince words, saying, "In our flash business, we had an awful quarter."

Intel Reorganizes Executives, Units

Intel Corp. has undertaken a massive reorganization of its operating groups to focus on specific areas such as the digital home and health care. The roles of a number of key executives were also changed. The moves are part of the company's decision to focus on individual platforms, explore potential moves into new markets and place more emphasis on the growing channel business, a spokesman said.

Veritas CEO Defends Merger With Symantec

At unveiling of new backup system, Bloom says key operations won't be cut

BY LUCAS MEARIAN
NEWS STAFF

VERITAS Software Corp. CEO Gary Bloom last week conceded that it has been difficult to convince users and investors of the benefits of his company's planned $13.5 billion merger with Symantec Corp., a deal that's expected to close by midyear.

During a product announcement here, Bloom assured critics of the merger that it won't lead to cuts in Veritas operations such as software development and customer service. He also said the deal will result in "very few" layoffs.

"It's not about cuts," said Bloom, who will be vice chairman and president of the combined company. "It's all about retention. We want to retain the development teams. We want to raise service levels." Bloom said he expects to see $100 million in savings once the merger with security software vendor Symantec is complete.

Bloom was in New York to unveil Version 10 of Backup Exec for Windows Servers, Veritas' data backup tool for small to midsize businesses. The latest version has several new features, including disk-to-disk-to-tape backup, synthetic full backups, centralized backup, and tight integration with Veritas Replication Exec 3.1 and Veritas Storage Exec 5.3.

Timesaver

Richard Van Baalen, senior IT manager at Holland & Knight LLP, a law firm in Lakeland, Fla., just finished a pilot with Backup Exec 10. He predicts that centralized management of his storage infrastructure can save 20 man-hours by eliminating the need for separate systems administrators to do backup and replication tasks.

Centralizing backups from direct-attached tape devices in each office to disk drives in the firm's Lakeland data center offers greater peace of mind, Van Baalen said. "We're worried about data retention and the discovery [process] in case of a lawsuit," he said.

Van Baalen also said he is upbeat about the Symantec merger, since a combined storage and security offering could ease management headaches at the law firm, which has 1,250 attorneys and 30 offices in the U.S. "Storage security is what keeps people up at night," he said.

Robert Graham, CIO at Farmers & Merchants Bank, which operates 20 branches in Los Angeles County and Orange County, Calif., said the centralized disk backup capability should save the bank $100,000 annually and improve IT staff productivity by 33%. The disk-based backup feature also provides greater regulatory compliance capabilities, he said.

Michael O'Brien, a systems engineer in charge of Veritas software sales at reseller CDW Corp. in Vernon Hills, Ill., said there has been an air of uncertainty among customers about the proposed merger. CDW resells both Veritas and Symantec software, as well as backup products from EMC Corp. and IBM.

O'Brien said he's most impressed with Backup Exec's ability to provide a consolidated view across multiple file servers. "I'm curious to see how they will bundle the package [with Symantec]," he said.

Jeremy Burton, executive vice president of the company's data management group, said the next version of Veritas' enterprise-class backup suite, NetBackup, is expected to offer capabilities similar to those of Backup Exec 10 by the end of the year.

With that upgrade, it will be possible to perform backup, replication and storage resource management from a single consolidated view, he said. **52080**

ADDITIONAL FEATURES

Backup Exec 10

- Synthetic Backup, which melds incremental backups into a single full backup
- Off-Host Backup, which automatically shifts backups of data snapshots to alternate storage systems
- SmartLink Technology, which integrates data backup and management features from Storage Exec
- Central Administration Server Option, for managing and monitoring multiple Backup Exec servers from a single console

Symantec President Sees Long-Term Benefits of Deal

Symantec is still struggling to convince skittish investors that its planned acquisition of Veritas makes sense for the companies and their customers. In an interview this month, John Schwarz, Symantec's president and chief operating officer, defended the deal and said it will provide long-term benefits to the vendors as well as users and stockholders.

What is it that investors aren't getting about your planned purchase of Veritas? Investors have expressed two concerns. They're used to growth rates from Symantec in the 30% range. The combined company is projecting a growth rate of 18% for the coming year. You're looking at a $5 billion-a-year company. There's no other software company that comes close to this kind of growth, certainly none in our size.

The second point is a lack of understanding of the synergies of the deal. Investors are looking for financial synergies that will be realized over the next six or nine months. We are projecting and proposing synergies that are going to be realized by customers in the long run.

What exactly are those synergies? If you look at the problem of managing the software infrastructure, security and information integrity are becoming very, very connected. In other words, data has to be secure, but it also has to be available.

Traditionally, security and storage purchases have been made by two different groups within companies. Why should that change? Virtually all of our large customers have been telling us that they are reducing the number of vendors they're dealing with. They want to simplify their procurement, their license management, their installation and their support relationships.

Will Symantec deliver integrated storage and security products rather than an amalgamation of point products? That is correct. Specifically, there are some interesting opportunities early on. We've been talking about infrastructure resilience as one of the critical solutions. In order for the infrastructure to be resilient, it has to be able to recover and restore itself at any point of failure to a known good state.

– Jaikumar Vijayan

BRIEFS

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– *Jaikumar Vijayan*

LAWSON

It's Time

GLOBAL

An International IT News Digest

Toshiba App Controls PC Via Cell Phone

TOKYO

TOSHIBA CORP. has developed software that lets corporate users remotely operate a PC using a mobile phone over a cellular network. The software will be available in Japan in late March, an executive at Tokyo-based Toshiba said last week.

Ubiquitous Viewer is installed on a mobile phone and on a client PC running Windows. It re-creates the PC's screen on the phone's display, allowing the user to edit documents that reside on the PC, said Mitsunobu Aoyama, director of Toshiba's software engineering center. The software captures only a portion of the remote PC's screen for display on the mobile phone, but users can scroll to see the rest of it.

Ubiquitous Viewer can also remotely switch on PCs that support its remote wake-up function, and it gives the phone's keypad many of the functions of a PC keyboard and enables the phone's cursor pad to mimic a mouse.

■ PAUL KALLENDER, IDG NEWS SERVICE

Germans Move Closer To Plastic RFID Chip

DÜSSELDORF, GERMANY

RESEARCHERS IN GERMANY have come one step closer to realizing the dream of an inexpensive plastic chip that can be printed on foil and handle functions such as radio frequency identification (RFID).

PolyIC GmbH, a joint venture between Siemens AG and Kurz GmbH, hasn't developed such a chip yet, but it does claim to have created the world's fastest plastic chip to date, running at 600 KHz. The Erlangen, Germany-based venture said it has also pioneered a technique to print circuits onto foils.

Wolfgang Mildner, managing director of PolyIC, said earlier this month that the company plans to begin production of a plastic 4-bit chip next year. By 2008, it hopes to have a chip with a capacity of 128 bits and a processing speed of 13.56 MHz in order to comply with RFID standards. The goal is to produce RFID chips that cost about 13 cents apiece, Siemens said.

■ JOHN BLAU, IDG NEWS SERVICE

GLOBAL FACT

Spanish Police Nab Trojan Program Creator

LONDON

SPANISH POLICE last week arrested a man suspected of creating a sophisticated Trojan horse program capable of spying on Internet users through their webcams and stealing confidential information.

The 37-year-old suspect is a programmer from Madrid identified only by the initials J.A.S. Spain's Civil Guard said officers caught the man at his home monitoring people through their webcams. The Trojan horse has been distributed to thousands of computers through peer-to-peer file-sharing networks, police alleged. They said it allowed the man to take over a remote computer, access its files, install a keystroke logger to capture banking passwords and operate a webcam attached to the PC. **52043**

■ SCARLET PRUITT, IDG NEWS SERVICE

Compiled by Mitch Betts.

Briefly Noted

MIT decided Jan. 14 to close its Media Lab Europe in Dublin for lack of funding. It's the second time MIT has failed to replicate its Media Lab outside the U.S. In 2001, the university withdrew from Media Lab Asia in Bangalore, India, after a dispute with the Indian government.

■ JOHN BLAU, IDG NEWS SERVICE

Insurance firm FBTO Verzekeringen in Leeuwarden, the Netherlands, has boosted the profitability of its direct marketing campaigns by 29% by using predictive analytics software from SPSS Inc., Chicago-based SPSS said last week.

Last month's tsunami in Southeast Asia will cause a "minimal short-term slowdown" in IT spending in Thailand, Indonesia, Malaysia and India, said IDC economist Anna Tonchava in a report this month. But the report predicted that spending in the region will accelerate in the next 18 to 24 months.

Continued from page 1

Oracle

will "at the very worst be exactly the same as what PeopleSoft had. In many cases, we're lengthening the support."

In a further concession to disgruntled PeopleSoft customers, Oracle extended support for the former J.D. Edwards & Co.'s OneWorld XE ERP package by two years. PeopleSoft had planned to halt support for that product next month [QuickLink 51790].

"I have to admit to great surprise at the extension for two full years," said OneWorld user Robert Robinson, business systems supervisor at Durr Industries Inc., an automotive supplier in Plymouth, Mich. He had been lobbying for a one-year extension. With this move, "Oracle just made a fleet of XE users very happy. This is not enough to make me drink the Kool-Aid, but it shows sensitivity to the needs of J.D. Edwards users," he said.

"Although I'd argue [that the XE support extension] was an easy decision, it does buy them a lot of goodwill from the OneWorld community," said Ken Meidell, CIO at Seattle-based outdoor specialty gear maker Cascade Designs Inc., an XE shop.

Nevertheless, Meidell said he doubts that Oracle can deliver on all the promises and schedules for Project Fusion while also pleasing customers and investors. Oracle's embrace of Java is problematic for Cascade, Meidell said, because the company has standardized around Microsoft Corp.'s technology stack.

Nonetheless, while not enthusiastic about migrating to Fusion, Meidell said he may have to consider it unless SAP AG or Microsoft comes up with tools to make an ERP conversion as simple as a regular upgrade.

On the other hand, staying on OneWorld XE would also present challenges, since "I'm stuck with a system I'll eventually outgrow," he said.

"I'm on the path of cautious optimism," said Jim Prevo, CIO at Green Mountain Coffee Roasters Inc., a PeopleSoft Enterprise shop in Waterbury, Vt. Prevo said he plans to keep using his applications but will be watching for new pricing and development policies. As long as Oracle doesn't start treating PeopleSoft customers like cash cows — as Prevo feels the company has done with database customers — "we should be in good shape," he said.

Oracle's plan to incorporate the best of the product lines into Fusion is good for customers, said Pat Dues, a project officer for the Las Vegas city manager's office and president of the independent Oracle Applications Users Group.

Oracle has indeed developed tools to automate and streamline product upgrades, Dues said, citing Las Vegas' smooth upgrade to Version 11i.9 of the Oracle E-Business Suite from Version 11.03.

Using similar Oracle tools in the future, Dues expects that either PeopleSoft or E-Business Suite customers should be able to upgrade to Fusion rather easily. "I don't see why there should be a question as to the viability of the project," she said.

Analysts warn that it's still too early to tell how the merger will play out.

Oracle executives know that rivals such as IBM, SAP and Microsoft are sniffing around and looking to win over unhappy customers, said James Governor, an analyst at RedMonk, a consultancy in Bath, Maine. He urged PeopleSoft customers to start controlling the merger's direction by driving hard bargains with Oracle and making sure they get all of the vendor's promises in writing.

"Now is a critical juncture for [Oracle]," said Governor. "It paid good money for these customers. Every single one it loses will devalue that investment." **52060**

ALSO IN THIS ISSUE

Columnist Frank Hayes offers his thoughts on Project Fusion's potential. Page 46

CHANGE IS NOT OPTIONAL.

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New Law Prods Food Makers To Focus on Data Management

Companies turn to packaged software to collect, organize product information

BY JAIKUMAR VIJAYAN

THE CLOCK IS TICKING for food manufacturers to comply with a new federal labeling law that places a greater emphasis on their ability to manage data related to ingredients, formulas and recipes.

The Food Allergen and Consumer Protection Act, known as FALCPA, was signed into law in August 2003 and will take effect at the start of next year. The measure requires food companies to identify the presence of eight major allergens in plain language on their product labels.

Complying with the law requires companies to have an organized process for collecting, maintaining and tracking allergen information, from the raw-material stage to the production of finished goods, said Herb Rau, director of quality at Barber Foods, a maker of frozen chicken products in Portland, Maine.

"From an IT perspective, the information you have inside your systems needs to be always updated and has to fairly represent the material you're using in your products," Rau said.

Complicated Task

It's a task that can get complicated, especially for larger companies that typically deal with many ingredients, suppliers and products, said Kara Romanow, an analyst at AMR Research Inc. in Boston.

"Many of them don't have the information in any sort of organized fashion," she said, adding that food makers often store raw-material and recipe information in spreadsheets and lab notes.

Some IT vendors offer tools designed to help companies better organize their information. Last week, for instance, Formation Systems Inc. in Southboro, Mass., released an updated version of its Optiva product life-cycle management software for process manufacturers that features new formula, labeling and package management functions.

The software can capture information about raw materials and roll up the data "so that no matter what product or formulation you're talking about, it can provide you with allergen information," said Ian Finley, vice president of marketing at Formation.

Rich Products Corp., a $1.7 billion food processor in Buffalo, N.Y., is using Optiva to store information on all of the ingredients in its products. The allergen information related to each ingredient is carried through during the manufacturing process, as are nutritional calculations. That makes product labeling easier, said Anne Schneider, a business analyst at Rich.

"With Optiva, the data has become more visible and easier to extract," she said. Rich installed the software last year, having previously relied on a homegrown application to track product information.

Barber Foods is also using Optiva to track and store information about raw materials. The company already plans to move to the new version of the software, Rau said.

Other vendors with similar products include Aspen Technology Inc. in Cambridge, Mass., and San Francisco-based GlobalNetXchange LLC, which last year acquired a technology that lets users create a central database for raw materials and finished products. It also performs recipe and nutritional calculations based on the data. **52092**

JUST THE FACTS

FALCPA

WHAT IT IS The Food Allergen and Consumer Protection Act

WHEN IT GOES INTO EFFECT Jan. 1, 2006

ITS PURPOSE Requires food manufacturers to identify the presence of allergens such as milk, eggs, peanuts, shellfish, wheat and soy in their products

WHAT PRODUCTS ARE AFFECTED Whole foods as well as spices, flavorings, additives and food coloring

New CIO Brings Financial Integrity to Freddie Mac

BY THOMAS HOFFMAN

Like other companies battered by accounting scandals, Freddie Mac, which in 2003 reported nearly $5 billion in understated earnings from 2000 to 2002, has replaced many top executives. Changes were also made in the mortgage giant's 1,400-person information systems and services (ISS) ranks.

Since last fall, the company has hired June Drewry as senior vice president of its ISS group and Joseph Smialowski as executive vice president of operations and technology. This month, Freddie Mac tapped **James P. Witkins**, *former managing director of operations and technology at FleetBoston Financial Corp., as CIO and senior vice president of technology. Witkins, 54, discussed his plans for the unit with* Computerworld *last week.*

What's your charter at Freddie Mac? I'd like to put that into three categories. First, to enable Freddie from a technology perspective to meet its mission and goals as the market is developing. We believe a high portion of our growth will come from household and business growth from minority families. We are focused on what it will take to do that, including use of Spanish language on our Web site.

Second, to make Freddie not just effective and competent, but easy to use. Third, I'm working with the CFO to take the financial reporting process into a fully automated and highly repeatable environment.

What's been done and what's being planned for automating financial reporting at Freddie Mac? As I look at our investment agenda for 2005, many of these initiatives address this issue of automating steps in the financial reporting process, given the requirements to fully report to our investors and regulators. There's a full plate of initiatives under way.

Are there any efforts under way to create an automated audit trail on financial activities? Absolutely, but we're at a point where the real smart move is to attack it at the business-object level. If you wait to do it at some audit level within finance, you're already back where you started from.

What strengths do you bring to the CIO role at Freddie Mac? I've been involved with the financial services industry for the better part of 27 years now, and I've worked all three sides — front-office businesses, operations and technology. The model may shift over time, but the delivery of financial services requires all three. I hope, coming over here to Freddie Mac, to serve a pivotal role in ensuring that all parts of Freddie are brought to bear and focused on the customer and that the tech teams are working in a highly integrated responsive mode with their front-office and business teams.

What are the top challenges you face? To get the technology resources of the company focused on our ongoing mission and to keep them focused on the ongoing automation of the financial process. From a pure technology standpoint, when you peel back the onion, I'm finding one of the key challenges is data management — the sheer volume of data needed to manage the risk management models we have, the sheer volume of data we have that allows us to be Freddie Mac. This can put real strains on traditional data warehouse and data mart concepts. One of our key challenges will be rearchitecting our corporate data warehouse. It's an extremely data-intensive business. **52095**

"When you peel back the onion, I'm finding one of the key challenges is data management."

JAMES P. WITKINS, SENIOR VP OF TECHNOLOGY, FREDDIE MAC

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Compuware Adds Tools for the App Life Cycle

BY HEATHER HAVENSTEIN

Compuware Corp. today will continue the march to spread its product portfolio across the application life cycle by unveiling new versions of its development and testing tools and a new offering for managing performance.

To more closely link disciplines such as development, testing and operations, Detroit-based Compuware is releasing new versions of its OptimalJ development tool and its DevPartner Java Edition debugging and analysis offering. In addition, Compuware will unveil Vantage Analyzer for J2EE for managing Java application performance.

"Java is evolving so fast that companies can't necessarily hire brilliant experts in every category all the time," said John Williams, director of strategic initiatives at Compuware. "No longer can we afford to silo the disciplines and deliver tools as though they existed in a vacuum."

For example, Vantage Analyzer is designed to boost visibility into J2EE application servers and identify bottlenecks from the applications through to the back-end infrastructure, Williams said. IT workers can use Vantage dashboards to measure end-user response times and give information about performance slowdowns to developers, he added.

Farm Bureau Mutual Insurance Co. in West Des Moines, Iowa, has tested a beta version of Vantage Analyzer to correlate end-user performance in a Java-based property and casualty application to problems on its mainframe, said Matt Evanson, the company's team leader of enterprise monitoring solutions. "It has been very difficult to understand where — especially on the back end — we were seeing performance degradation," he said. "We wanted to dig deeper into WebSphere and the Java itself. Analyzer will help us understand more in deptb on the middle tier as far as what calls are causing the slowdown."

OptimalJ 3.3, Compuware's upgraded tool for generating code from models, can automate the entire development of a user interface, Williams said. The new version of DevPartner Java Edition adds analytic capabilities to help Java developers collaborate with testing teams to build quality assurance into the initial development process, he added.

Dana Gardner, an analyst at The Yankee Group in Boston, said the new products are part of an effort by Compuware to help companies whittle costs throughout the application life cycle. "Enterprise Java is so complex [that] the more visibility you can get into what is going on and fix problems sooner, the better it is," Gardner said.

But Gardner also noted that Compuware has yet to tackle other management requirements, such as optimizing runtime as it relates to operating systems and hardware. 52041

Arkansas University Looks to IBM to Boost Wireless Coverage

BY MATT HAMBLEN

The University of Central Arkansas is working with IBM to set up a distributed network of cellular antennas that multiple telecommunications carriers will be able to use — for a fee — to offer cell phone services on the school's campus.

The project's twin goals are to offer UCA's 10,000 students a variety of cellular choices and generate revenue for the school. Ron Toll, dean of the College of Natural Sciences and Mathematics at UCA, said carriers that sign long-term leases for access to the antenna network will pay monthly fees.

The revenue from the fees will be used to support other wireless initiatives at the Conway-based school, such as the planned purchase of wireless-enabled laptop PCs that are scheduled to be rolled out next year, Toll said.

UCA is trying to solve a common problem with its network of two conventional outdoor cellular antennas and about 25 smaller indoor ones: bringing wireless WAN coverage inside large buildings where radio signals are easily disrupted.

Michael Sisto, a broadband technology consultant at IBM, said indoor antennas are used fairly often on office campuses and by businesses such as hotels and shopping malls.

UCA is spending about $1 million on the network, on top of an investment of "several millions" of dollars in network infrastructure improvements that were done with IBM in recent years, Toll said. He added that the university expects to achieve a return on its overall investment within 36 to 42 months.

Cingular Wireless LLC began offering cellular services on UCA's 300-acre campus last month and planned to expand its coverage last week. Alltel Corp. is scheduled to make its cellular service available at UCA within four weeks, and Toll said UCA is negotiating with five other carriers. 52044

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DON TENNANT

Who's *Really* Who

DON'T GET ME WRONG. I love doing interviews with hot-shot vendor executives as much as the next guy. In fact, having been around a while, I suppose I've done more of them than the next guy and the guy next to him combined. But it's always galled me that these people have somehow been elevated to celebrity status. One of them will take the stage at some trade show, and you'd think Tom Cruise just walked out. And thank goodness they have hordes of handlers protecting them from the great unwashed like you and me.

I'm here to tell you that these "celebrities" are just regular guys. Well, most of them are, anyway. Larry Ellison's a little over the top. I remember interviewing him in the presidential suite at the Grand Hyatt Hotel in Hong Kong. It was an opulent setting, with chandeliers and a grand piano. To their credit, his handlers didn't put plastic on the chair before I sat down. But it was still a bit much.

So Ellison aside, here are some firsthand observations to explain what I'm talking about:

Bill Gates: A very unassuming guy with a dry wit. I hooked up with him once when he was visiting China. When I expressed surprise at his comment that he didn't check his e-mail or even call into the office during his 17 days in China, his response was pretty funny: "Nobody calls me up and says, 'Hey, we wrote some code today,' and I say, 'Write more tomorrow.' So I know if I called in, I'm not even sure what I would say." You have to love that.

Scott McNealy: A down-to-earth sort who doesn't mind it when you mess with him. I interviewed him once in the Diaoyutai State Guest House in Beijing, where the Chinese government accommodates foreign VIPs. When I walked into his suite, I looked around and said, "This is where I interviewed Gates last week. Looks like you slept in the same bed." McNealy did this dramatic shiver that made me wish it was a TV interview. It was hilarious.

Marc Andreessen: Just like you or me, but even goofier. The time I interviewed him, one of his handlers was present. When the interview was over, the cherubic Andreessen turned to her and asked if it would be a good time for him to go to the bathroom. The mortified look on her face was priceless. You could tell she was thinking, "Good grief, Marc! Just go!"

That's why I just don't get the celebrity thing. So let's dim the spotlight on them a little bit. Instead, let's shine it on IT professionals like you. Let's do a real "Who's Who in IT."

On page 36 of this issue is the second in what will be an occasional Q&A feature with just that moniker. It's the brainchild of Management editor Kathleen Melymuka, and we think you'll find it to be a great read.

" 'Who's Who' lets IT veterans describe their jobs from the inside out and tell their co-workers in IT and business what they should know about those roles," Kathy explains. "The hope is that people can help each other achieve more if they have a better idea of what people are really doing." Besides, she adds with a wink, "everybody likes to talk about what they do."

Oh. Like interviewing vendor hotshots, I guess. I've been found out. How embarrassing. **52061**

Don Tennant

VIRGINIA ROBBINS

Learning to Manage by Letting Go

OUCH. When I reached over to pick up a coffee cup, a pain shot up my arm to my shoulder. My new office setup, too much e-mail and some long airline flights during the holidays had aggravated an old sports injury. I needed to see my massage therapist.

Thanks to a cancellation, she was able to fit me in the next evening. Over and over, she worked on the shoulder. Finally, she asked, "Girlfriend, what are you holding on to?"

I laughed. As she worked down my back, she murmured, "You know, us planners and controllers, we just want to hold on to things. Sometimes we hold on a bit too long. I think it's time to let go."

I breathed deeply, willing myself to let go. Nothing happened. My new office and the in-box full of e-mails remained.

Out of the blue, I remembered a story I had heard once about a company that had been struggling to keep the logos on its trucks graffiti-free. After the company spent millions on paint and parking-lot security, someone suggested that the easiest thing to do would be to remove the logos from the trucks. The trucks remained covered with graffiti, but they fit perfectly into the neighborhood.

Reframe the question, and the answer becomes obvious.

What was I holding on to? My team had done a great job while I was on vacation. Most of the e-mails were team status reports or routine updates that proved how well everyone had done. My new office puts me closer to my boss and my peers, enabling me to build on our already excellent relationships. So, what was the problem?

When I was younger, I changed jobs a lot. The economy was good, and a new job always re-energized me and

provided new challenges. Nowadays, I'll change jobs if I have to, but I'd rather not. Although the economy is improving, no company is safer than any other. But more importantly, I now know that it takes time to build relationships and develop trust, and it's relationships that make my work eojoyable. I have to find other ways to reenergize. I had counted oo my vacatioo to do the trick, but it didn't.

Before my vacation, I had exchanged e-mails with a board member, a former CIO, who inquired about my current challenges. I typed up a brief recap of the issues I was facing, but then it occurred to me that everything on my list is common to all IT departments. I ended up just saying that my current challenges were the "usual stuff," and she immediately understood. She knew what the "usual stuff" meant — resource management, prioritizatioo and keeping IT aligned with the business.

During my vacation, I had been deeply concerned that the usual stuff still needed my attention, but I hadn't been able to resolve anything. The usual stuff was too normal to be solved, but not being able to solve it was wearing me down. But now, thinking of those truck logos, I found the energy to begin reframing the usual stuff into unusual questions. I shared some of my ideas with my boss yesterday, and his response was so positive that I could actually feel my concerns transform into energy. I hadn't come back from my vacation refreshed and ready to go, but now I'm ready to take on the new year. And my shoulder feels great.

I'll let you know how it goes, but for now, it feels like I've given myself a oew job. **51978**

MICHAEL GARTENBERG

Business Must Be Cautious With Firefox

THERE HAS BEEN a lot of buzz in the past few months over the arrival of Firefox, the open-source browser published by The Mozilla Foundation, and how Microsoft's Internet Explorer is starting to lose some of its share of the browser market to this new competitor. Out of the ashes of Netscape, Mozilla has built a solid browser that supports features such as tabbed views, Google for native searches and direct support for RSS feeds. But business users need to think twice about making the switch from Internet Explorer, since Firefox lacks the ability to run Microsoft ActiveX code.

When Microsoft integrated Internet Explorer tightly with its operating systems and allowed the browser to execute Windows code, it created a double-edged sword. On one hand, a new class of richer Web-based applications could be created, allowing for a far more interactive Web experience. Unfortunately, opportunities for hackers to exploit this feature and execute malicious code on users' machines have been abundant. The result has been a security nightmare for IT organizations, which must deal with an endless series of patches and fixes from Microsoft to preserve their online safety.

Firefox was released into a browser market that hadn't been very active or innovative since Netscape's decline. Lacking strong competition, Internet Explorer was no longer a strategic product for Microsoft, and few resources were devoted to it, other than those needed to fix bugs and security holes. This left the market open for the Mozilla team to create its user-friendly and secure browser.

The receptioo that Firefox has received from consumers and the press might tempt business users to switch browsers, but there are some good reasons not to. Many mission-critical applications have been built on Internet Explorer, and most organizations don't have the budget or resources to recode them. In addition, PCs' application loads need to be properly tested to ensure that nothing breaks with the addition of a different browser. In the near term, many business users will he better served by keeping Internet Explorer and installing security updates as they're released. If they aren't dependent on Internet Explorer technology, however, some end users could use Firefox for their daily Web surfing while reserving Internet Explorer use for sites that require it.

Despite the factors that should keep many business users from adopting Firefox at the expense of Internet Explorer, I believe this new browser is going to be a force for positive change in the industry. There's no doubt that Firefox resonates with end users. Microsoft's lack of ambition in driving browser development forward, combined with the multitude of security issues associated with Internet Explorer, fostered an environment where Firefox could flourish.

Although the 21st century browser wars don't have nearly as much at stake as the Netscape/IE skirmish — that sort of intensity is reserved today for things like desktop search, where there's money to be made — a more competitive browser market could be developing.

If Microsoft is spurred by Firefox's success to put more resources into Internet Explorer, it would help create a better experience for both businesses and consumers. That might even happen before Longhorn ships. **51909**

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READERS' LETTERS

Columnist Responds to Indiana University

IN HER JAN. 10 LETTER [QuickLink 51627] referencing my Nov. 29 column ["One Born Every Minute," QuickLink 50622], Norma Holland of Indiana University claims, "The one area where we experienced serious complications was in loans processing for some students, mainly on one campus."

The original *Computerworld* article ["ERP System Doesn't Make Grade in Indiana," QuickLink 49349] stated, "The university estimated that about 3,000 . . . students arriving at its flagship campus . . . and other locations were denied financial aid." Even a "basic journalism" student would conclude that 3,000 students are much more than "some," and the original *Computerworld* report specifically mentioned multiple campuses.

The problem at IU goes deep. Michael McRobbie, then the CIO at IU, was one of the seven signatories to a letter to PeopleSoft dated Nov. 22, 1999, that stated, "There are too many bugs . . .[and] we are missing business events and/or having to put in place expensive contingences" [QuickLink a5320].

Gopal K. Kapur
President, Center for Project Management, San Ramon, Calif., gkapur@center4pm.com

Cookies at Root Of Cart Problem

ONE OF THE REASONS that some "shopping cart" sites have errors is that they never mention that you must have cookies turned on for their sites to work ["On the Mark," QuickLink 51002].

How many users who get a blank page after choosing "Add to shopping cart" are going to figure out that they must turn on cookies for that site? How difficult is it to add a message to the "cart" page that explains this?

Of course, requiring cookies to be turned on is an annoyance all by itself. Do they want my business or not?

Phil Daley
Hillsboro, N.H.

Snap Judgment

DO YOU THINK that just nine months of consulting experience provides a basis for advice to those seriously considering entering the profession ["So You Want to Be a Consultant," QuickLink 50660]? Nine years maybe, but not nine months.

John Blair
Freelance consultant, Carefree, Ariz., john@jblairconsulting.com

Dumb Is Beautiful In Fighting Spam

HERE IS AN ELEGANT solution to the spam mess: Let's make e-mail clients dumb again.

Pure text. No embedded links. No support for extensions, plug-ins, fonts, color or graphics. Just pure, undiluted content.

The message, rather than the medium, would be king. I might allow an attachment or two, but nothing more.

Text is easier to filter, faster to process and nothing of a bandwidth hog like HTML e-mail.

Wayne Socha
Monrovia, Calif.

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

For more letters on these and other topics, go to **www.computerworld.com/letters**

*Trends in Proprietary Information Loss Survey (ASIS 2002) ©2004 Sharp Electronics Corporation

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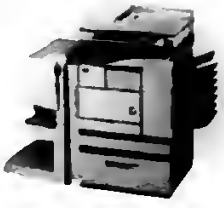
Protect your information with the Data Security Kit from Sharp. Financial facts, personnel records, customer lists: networked copiers/printers process sensitive information every day. Unfortunately, their hard drives can also be accessed via the network, contributing to $60 billion worth of information theft every year.* To protect this weak link in your corporate security, we've created our Data Security Kit. It's the first copier and printer protection to be validated by Common Criteria, a government-sponsored program, and it's available only with our Digital IMAGER™ series of copiers/printers. Sharp's Data Security Kit. Enhanced information protection at your fingertips. sharpusa.com/security



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Collaborating Angels
Cmdr. Eric Rasmussen of the U.S. Navy is testing Groove Networks software to manage information that should help speed the delivery of humanitarian aid. **Page 25**

Lean Machines
Lean manufacturing initiatives aren't new, but companies are increasingly finding the software tools they need to automate lean processes **Page 26**

SECURITY MANAGER'S JOURNAL
Hollywood Legal Threat Leads to Detective Work
When the Motion Picture Association of America sends a threatening letter charging that an employee has violated copyright law, Mathias Thurman has to find out who the culprit is. **Page 30**

Narrowing THE Search

Companies are looking for search products tailored to their needs – and the options available go far beyond keywords.

By Sue Hildreth

TO MOST END USERS and even many IT managers, the term *enterprise search* implies little more than a keyword text box on the company Web site, as opposed to one on the public Internet. Five years ago, that was basically correc.. Today, however, search is a lot more than keywords.

"There's a whole spectrum of technologies that fall under the big umbrella called 'search,' " says Hadley Reynolds, a research analyst at Delphi Group. "They range from simple keyword search to taxonomy classification and categorization to text analytics."

For instance, researchers at the Stanford Linear Accelerator Center (SLAC) in Menlo Park, Calif., recently needed a search tool to help them index and navigate an internal newsgroup with 600-plus posts per day. They needed a tool that was customizable and capable of handling the large volume of posted messages. After evaluating a number of commercial and open-source search products, SLAC chose the open-source Swish-e tool, both for its speed and low cost.

"It doesn't do all that Google does . . . but it turned out to be the fastest index engine," says Douglas Smith, an experimental support professional at SLAC. Smith notes that internal search requires different capabilities than public Internet search, where users don't know anything about the content they're searching.

"For indexing libraries, catalogs, help texts, source code repositories, newsgroups, etc., where the source is known, you want to rank things by the content rather than by comparison of the source links. And that's what Swish-e offers," Smith explains.

SLAC's use of Swish-e is a basic application of search technology in the enterprise. Higher-end search tools, however, offer a more diverse range of features and functions.

Enterprise search applications all start with the ability to search unstructured content, such as PDF files, Word documents, Web pages and other information not contained in a relational database. They include a search engine and are able to rank results by relevance. And most also provide a way to customize both the results ranking and the indexing process, enabling organizations to place greater weight on characteristics of importance to them, such as the source or type of content.

SLAC also uses Verity Inc.'s Ultraseek search engine to index and provide access to SLAC's 500,000 pages of research, administrative information and other HTML and PDF content. The ability to customize the rules for indexing content sped up the process, says Web information manager Ruth McDunn. "It used to take a month to update the collection. Now we can update every day or, at most, every week," she says.

Ultraseek, like many enterprise search products today, allows users to customize the indexing criteria to make some factors more important than others. For instance, McDunn says she can configure it to skip "black holes" of content that might slow down the indexing process. "We have some systems that churn out tens of thousands of pages a day that don't really need to be indexed, but the spider can get stuck doing those same pages over and over." The Ultraseek indexing "spider" also recognizes patterns and is able to skip redundant or irrelevant content.

Beyond the Text Box

Besides customization capabilities, search tools may provide industry-specific taxonomies — content-classification schemes — as well as the ability to scan content and generate a taxonomy. They often provide categorized results, such as "press releases" or "product documentation." Some offer summarization capabilities for scanning content and automatically generating a summary.

Other tools offer profiling, the ability to examine searchers' behavior and point them to potentially related content, or federation, which consolidates results from other search engines into one list — helpful for organizations with search engines embedded in existing applications. Still others provide behavior analytics to help an organization track a range of metrics on searchers' behaviors and the accuracy of their results.

Enterprise search is one of those areas where each implementation is truly unique, says Susan Feldman, an analyst at IDC. "There are lots of ways you can search within an organization," she says.

Given the enormous range in the types of content organizations have and in the ways in which they need to slice and parse all of that content, it's not surprising that the enterprise search market has become so diversified itself. Some of the more recent capabilities that vendors have added to their search software enable organizations to use search for a variety of sophisticated applications.

• **Behavioral analytics.** Increasingly, vendors are adding analysis tools to help organizations discover what, how and why people are searching, and then to refine the search algorithms to produce more-accurate results. At People's Bank in Bridgeport, Conn., Web site managers used a search analysis tool to figure out why only 40% of customer searches produced accurate results.

Ross Jenkins, the bank's senior information architect, used Mondosoft AS's BehavinrTracking tool to analyze why people weren't finding what they wanted. "It tells you the types of keywords customers use, possible synonyms, whether they're searching and stopping or continuing to search, and a range of other indicators," he says.

Jenkins also leverages the metrics provided by BehaviorTracking to find out which searches were most likely to lead to a customer "conversion," such as opening an account or applying for a mortgage. For those high-value searches, he creates special "landing pages" that are prominently displayed in the list of results.

"We've optimized the search-engine technology to such an extent that when people search, they find — and when they find, they convert," says Jenkins.

• **Aggregation of multimedia content.** Search isn't just for data and text, of course. As Tim Hardy, chief technology officer at World Book Inc., publisher of The World Book Encyclopedia, can tell you, there's a multitude of formats out there that a searcher may need to access. That was the situation confronting the IT staff when they sought a search tool for World Book's Web encyclopedia. The encyclopedia provides access not only to World Book's 25,400 articles and 248,000 definitions, but also to 9,300 audio clips, 1,480 maps, 128 photographs and 115 video clips.

Today, Chicago-based World Book uses Endeca Technologies Inc.'s ProFind and XML metadata to create a unified index of materials. "We have an XML database for each of the different content types that provides the indexable data. Now we're able to place all the differing content types into one integrated index," says Hardy.

• **Structured and unstructured data.** Many organizations need a search environment that can access both unstructured data and the information in relational databases. Such is the case at ThomasNet.com, a business-to-business Web site launched by New York-based Thomas Publishing Co. in August for industrial manufacturing companies.

ThomasNet enables purchasing managers and others to search for vendors and products that meet their needs. ThomasNet uses Fast Search & Transfer ASA's Enterprise Search Platform and AdVisor products to combine unstructured content from vendor Web sites with structured data from its own database of 650,000 company listings. AdVisor returns product information from Web sites and matches them against ThomasNet's taxonomy, then combines that content with information from the database.

"We've indexed a collection of industrial Web sites with metadata and overlaid it with our taxonomy of 64,000 categories," says Monica Lavin, ThomasNet's executive director for Web initiatives.

• **Text analytics.** Also called text mining, this approach to enterprise search is rapidly growing in importance. Aimed at ferreting out concepts in unstructured content, text analytics tools parse content into nouns, verbs and adjectives and analyze them to determine the topic and its context, thus enabling more-precise searches. Sold by vendors such as ClearForest Corp. in Waltham, Mass., and Attensity Corp. in Palo Alto, Calif., text analytics products are gaining popularity.

For instance, Electronic Data Systems Corp. in Plano, Texas, uses text analytics to find relevant information in its supply chain and procurement systems for comparing the refund and discount clauses in various vendors' contracts and other purposes.

"The rate of growth of unstructured data is exponential, while our ability to manually read documents is static," says Kas Kasravi, a fellow at EDS, which has designed text analytics solutions for customers using the ClearForest product. "And that means that we don't have the information to make the best decisions . . . and that's where text mining comes in." **51835**

Finding the Right Search Product

Anyone contemplating the purchase of a search product would be well advised to do substantial internal homework before heading out into the market, say experts.

As IDC's Susan Feldman advises, "People need to delineate the kinds of information and activities they're going to have to support. And that means doing a fair amount of research to find out what kinds of questions people are asking, who the people who are asking the questions are, what their backgrounds are and how they want to ask their questions."

An IT manager should start by identifying the main type of search application sought, the specific features that users want (or don't want), and the volume of content that will need to be indexed and accessed. Once the laundry list of requirements has been developed and a handful of possible search products has been identified, the next step is to conduct trials of the candidates, says Guy Creese, managing principal at Ballardvale Research in Andover, Mass.

"Narrow your short list to three, then do a bake-off," he advises. "There are enough differences that it's not enough to just read the data sheet. You really need to go through the product to see how it works."

– Sue Hildreth

Hildreth is a freelance writer in Waltham, Mass. She can be reached at Sue.Hildreth@comcast.net.

MORE RESOURCES

For a list of vendors offering enterprise search products, go to our Web site

QuickLink 51987
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Across nearly all industries, new product and service offerings and breakthroughs depend on information technology. By exploiting software reuse, advanced security technologies, wireless networking, business intelligence and server and storage virtualization – to name just a few technologies – learn how IT leaders are laying the groundwork to deliver continuous business innovations while bolstering the bottom line.

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11:00am **Golf Exhibition with Long-Drive Champion Dan Boever**

Noon – 5:00pm **Pre-Conference Golf Outing**
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7:00pm – 9:00pm **Networking Reception**
Sponsored by bmc

Monday, March 7, 2005

7:00am – 8:00am **Breakfast**

8:00am – 8:15am **Welcome and Opening Remarks**

Julia King, Executive Editor, Events/National Correspondent, Computerworld

Patrick J. McGovern, Founder and Chairman, International Data Group; Founding Publisher of Computerworld

8:15am – 9:00am **Opening Keynote: Dialogue on IT and Business Trends Affecting Global Enterprises**

Charlie Feld, EVP, Portfolio Management, EDS; former CIO and e-Leader, Delta Air Lines
Charlie will address the issue of business resilience vs. business transformation and follow his presentation with an interactive dialogue on how these trends are impacting organizations worldwide.

9:00am – 9:45am **Discussion Panel: Beyond Business Alignment – Synchronizing IT and the Bottom Line**

Panel Moderator: Patrick Thibodeau, Senior Reporter, Computerworld
Across nearly all industries, new product and service offerings and breakthroughs depend on information technology. By exploring software reuse and integration, advanced security technologies, wireless networking, business intelligence and server and storage virtualization – to name just a few technologies – these IT leaders are laying the groundwork to deliver continuous business innovations while bolstering the bottom line. In the past year, each one of these panelists has either saved their company millions in operating costs and/or added millions to revenue and profit lines as a result of deploying new and/or enhanced information technology systems.

Panelists: **Dan Demeter, CIO, Senior Vice President, Korn/Ferry International**
James (Lee) Hunter, VP, Information Technology Services, Southwire Co.
Jim Krause, Managing Director and CIO, Chicago Mercantile Exchange
Jefferey Marshall, SVP and CIO, The Men's Wearhouse
Kurt Woetzel, EVP and CIO, The Bank of New York

9:45am – 10:15am **IT's Role in Product Development and Service Offerings at Baxter Healthcare**

John C. Moon, Corporate VP & CIO, Baxter International Inc.
Information Technology at Baxter Healthcare is not just an enabler. It's rapidly becoming a part of the products and services offered by the $10 billion global leader in healthcare products. The convergence of medical technology and information technology offers many opportunities to improve the quality of care for both caregivers and patients. The current fragmentation in healthcare supply chains also offers opportunities for increased use of IT. These two areas require business alignment, stakeholder cooperation, and industry-wide participation, all of which will be highlighted in this presentation.

10:15am – 10:30am **Break**

Continued

"...I've met people here that I've known for a long time and others I've been eager to meet for years, all emerging in one place..."

William Farrow
Executive VP & CIO
Chicago Board of Trade

Monday, March 7, 2005 (continued)

10:30am – 11:00am **Mid-America Outsourcing for Cost Savings and Innovation**

Cheryl T. Smith, EVP and CIO, McKesson Corp.

Learn how McKesson Corp. has saved more than $10 million annually, a percentage of which is reinvested in IT innovations, by relocating its data center and 300 IT jobs from San Francisco to Iowa.

11:00am – 12:45pm **Concurrent IT User/Customer Case Studies**

12:45pm – 2:00pm **Luncheon served in the Networking Lounge**

2:00pm – 2:30pm **Networks and Beyond: iT as a Driving Force in Business Strategy**

Ron Ponder, EVP and CIO, Wellpoint, Inc.

The IT executive has always been counted on to *implement* business strategy, but as our profession evolves, a new phenomenon has developed: IT is the key force *driving* business strategy. The network model of seeking the most efficient connections across the enterprise makes this possible. What future changes will networks drive in American business? In health care, momentum is building for a nationwide system of electronic health records. As IT systems in health care becomes more efficient and effective, they will inevitably drive companies to adopt them more widely to provide not only better care at a lower cost, but fewer errors, hospital stays and deaths. Strategy flows from and is shaped by the technology. With electronic health records as in every other venture, IT executives will have hurdles to clear on securing data and supporting systems. Whether partnering in the development of strategy or putting IT into practice, we have a leading and increasing role to play.

2:30pm – 3:00pm **industry Visionary Address**

Jay Gardner, VP and General Manager, OnDemand Business Unit, BMC Software

3:00pm – 3:45pm **Battleground Leadership**

Richard Dooley, Leadership Expert & Founding Member of Society for Information Management; Hal Nelson, U.S. Army General (retired)

Each October a group of IT leaders walks the hills and hollows of the Gettysburg battlefield retracing Pickett's Charge, but they aren't studying history; they're studying business. Dick Dooley, a founding member of the Society for Information Management and creator of the Leadership Learning Forums, and Hal Nelson, a military historian and retired U.S. Army general, have combined two learning strategies to create their battlefield leadership seminar. Using photos and film clips to augment their presentation, they'll focus on the critical importance of improvisation alongside planning, the use and power of timing, the connection between how information is gathered and how decisions are made and the positive and negative influence of strong personal relationships.

3:45pm – 4:00pm **Break**

4:00pm – 4:45pm **Secrets of Super Spies**

Ira Winkler, Security Expert and Author of *Corporate Espionage*

Spies are unstoppable geniuses who can steal any information they want. You are at their mercy. Then there are the spy wannabes, such as criminals, hackers, and even your employees. Spies are good not only at stealing your information, but at protecting their own. Ira Winkler uses actual acts of espionage, including those that he committed, to demonstrate the most cost effective security programs for your organization.

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4:45pm – 5:25pm **Panel Presentation: IT Mentor – Valuable Lessons Learned on the Front Lines of Business**

Panel Moderator: Thornton May, Corporate futurist and Publisher of the "CIO Habitat Study"

Corporate futurist Thornton May publisher of the "CIO habitat Study" moderates a panel of IT leaders offering their first-hand experiences, lessons learned and candid advice on issues including post-merger and acquisition IT integration and bringing IT back in-house after outsourcing

Panelists: **Rich Hoffman, Director of IT, Hyundai Motor America/Hyundai Motor Finance Company**
Jeremy Lehman, CIO, Thomson Financial
Dr. Sumantra Sengupta, SVP & CIO, Scotts Company

5:25pm – 5:30pm **Closing Remarks/Wrap-up Day One**

5:30pm – 8:00pm **Dinner served in the Networking Lounge**

Tuesday, March 8, 2005

7:00am – 8:00am **Breakfast served in the Networking Lounge** *Sponsored by* AVAYA

7:15am – 8:00am **Breakfast Session: The Third Opinion – How Successful Leaders Use Outside Insight to Create Superior Results**

Saj-nicole A. Joni, President and CEO, Cambridge International Group Ltd., and author of *The Third Opinion: How Successful Leaders Use Outside Insight to Create Superior Results*

8:00am – 8:05am **Opening Remarks**

Julia King, Executive Editor, Events/National Correspondent, Computerworld

8:05am – 9:00am **Special Visionary Address: Coming in from the Cold: Embedding IT to Support Higher-Order Organizational Intelligence**

Peter Senge, Senior Lecturer, Massachusetts Institute of Technology, Co-Author of *Presence: Human Purpose and the Field of the Future* and author of *The Fifth Discipline: The Art and Practice of the Learning Organization*

IT as a separate function made sense when organizations were attempting to understand the role of computers and information systems in speeding and rationalizing organization processes. Today, strategic applications of IT focus primarily on embedding new capabilities in products and services, and technical IT operational support is often outsourced. Embedding IT in more intelligent products may be a precursor to embedding IT in more intelligent organizations. Despite greatly enhanced technical sophistication, basic decision-making processes in organizations have changed little over the past 30 years. "Knowledge management" methods have by and large failed to solve the core challenge of more widely spreading non-trivial insights and local management innovations.

An expanded vision of IT combines sophisticated technology with healthy social networks to build more integrated organizational know-how. This includes continually enhancing collaborative inquiry and systems thinking capabilities of working teams at all levels and diffusing new business insights and management practices through simulation-based learning infrastructures.

9:00am – 9:45am **Discussion Panel: One World IT**

Panel Moderator: Don Tennant, Editor in Chief, Computerworld

Enterprise data management, on-demand computing, ever-expanding storage systems, open-source options, VoIP and wireless and mobile technologies lead the list of infrastructure issues facing CIOs as their businesses expand operations worldwide. On the management front, cultural barriers, language differences, and business processes that can vary widely from country to country compound the global challenge. Computerworld's Editor in Chief leads a panel of CIOs discussing best technologies and best practices for going global.

Panelists: **Sherry Aaholm, SVP, Express and Freight Solutions, FedEx Services**
Sandeep Bhatia, Director, Global Customer Technology, Franklin Templeton Investments
John Parkinson, VP and Chief Technologist, Capgemini
Kim Perdikou, CIO, Juniper Networks

9:45am – 10:15am **Deploying Global Shared Services in Pursuit of Strategic Alignment**

Bette Walker, VP and CIO, Delphi Corp.

Strategically aligning IT to enterprise objectives requires a team that is business savvy, agile and cost effective – attributes that can be facilitated by a shared service organization. This presentation explores Delphi's experience of undergoing a dramatic organizational shift to a shared-services model while simultaneously initiating a focused and disciplined strategic alignment initiative

Continued

"... Peer interaction is an invaluable takeaway from Computerworld's Premier 100 IT Leaders Conference. There's courage in knowing that other IT leaders are dealing with the same issues and you can find corollaries and context in your interactions here ..."

Curtis Robb
CIO
Delta Air Lines

Tuesday, March 8, 2005 (continued)

10:15am – 10:30am **Break**

10:30am – 11:00am **The Passionate Pursuit of IT/Business Alignment**

Paul Higday, VP, IT & Program Development, Owens & Minor, Inc.

IT's role is to ensure what the business wants when the business wants it and how the business needs it. But the challenge doesn't stop there. The true pursuit of IT/business alignment also means ensuring that whatever IT builds today will work to support future business needs as well.

11:00am – 12:45pm **Concurrent IT User/Customer Case Studies**

12:45pm – 2:00pm **Luncheon served in the Networking Lounge**

2:00pm – 2:45pm **Beyond The Buy: Leveraging Vendor Relationships For Outside Expertise and Expanded Business Value**

Moderator, Bart Perkins, Computerworld Columnist and Managing Partner, Leverage Partners, Inc.

As organizations outsource more IT tasks and functions to service providers, forging supplier partnerships and managing vendor relationships have become key competencies for IT leaders. What difference does competent vendor management make in increasing overall business value? Learn how leading-edge organizations are making over IT procurement departments into powerful partnership management offices to leverage outside expertise, cut costs and ensure IT project success.

Panelists: **Frank Enfanto, VP, Healthcare Services, Blue Cross Blue Shield of Massachusetts**
Brian LeClaire, VP and CTO, Humana, Inc.
Rob Minicozzi, VP of Applications Development, Arrow Electronics, Inc.
Loreen Tabbut, VP, Information Services, Calpina Corp.
David Wennergren, CIO, Department of the Navy

2:45pm – 3:30pm **Discussion Panel: The CIO/CFO Connection**

Panel Moderator: Thornton May, Corporate Futurist and Publisher of the "CIO Habitat Study"

Three CIO/CFO pairs examine regulatory, financial and IT investment and innovation issues, in a moderated panel discussion that highlights how their approaches differ, what each wants from the other and how they reconcile their needs.

Panelists: **Lynne Ellyn, CIO, DTE Energy**
David Meador, CFO, DTE Energy

COMPUTERWORLD 100 PREMIER IT LEADERS CONFERENCE

3:30pm – 3:45pm **Break**

3:45pm – 4:15pm **Evolution Through Abstraction: On the Way to Utility Computing**

André Mendes, Chief Technology Integration Officer, Public Broadcasting Service

Between our recent past of closed proprietary systems and myriad point solutions and our fast-approaching future of standards-based networking, computing and storage lies a strange world of hybrid processes and workflows, premature business models and security concerns. André will describe the layered approach that PBS has used to prepare itself for the brave new world of utility computing.

4:15pm – 4:45pm

AT&T's Transformation

Hossein Eslambolchi, CTO and CIO, President GNTS, AT&T

AT&T's top IT executive who is also a leading industry innovator will share his vision of how emerging technologies will drive business transformation in the areas of networks, services, and the customer experience.

4:45pm – 5:15pm

Star Search: The Quest for the Best Executive IT Talent

Moderator: Damien Bean, Founder, CareerCurrency LLC, former CIO, Hilton Hotels

A panel of leading corporate IT executive recruiters disclose the specific hard skills and personal attributes companies are looking for in a CIO today. Other top-of-mind issues include shifting reporting relationships, how a new CIO can gain credibility quickly and the impact of outsourcing on the CIO's role. Bring your list of questions for these hiring experts.

Panelists: Tom Berray, Partner, Cabot Consultants, Inc.
Steve Kendrick, Principal, Kendrick Executive Resources, Inc.
Beverly Lieberman, President, Halbrecht Lieberman Associates

5:15pm – 5:30pm

Closing Remarks /Conference Concludes

7:00pm – 7:30pm

Cocktail Reception

7:30pm – 9:30pm

Gala Evening

- **"Best in Class" Awards**
- **Dinner with Honoree Recognition**
- **Entertainment**

"Best in Class" Awards Program Sponsored by hp invent

9:30pm – 11:00pm

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❑ Special services required? (Please attach a written description)
Would you like to receive information about the golf outing on Sunday, March 6th? ❑ Yes ❑ No
Would you like to receive a complimentary subscription to Computerworld? ❑ Yes ❑ No
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Registration Rates

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Attendee Profile: (This section **must** be completed in order to process your application)

Your business/industry:
- ❑ Aerospace
- ❑ Manufacturing & Process Industries (non-computer related)
- ❑ Finance/Banking/Accounting
- ❑ Insurance/Real Estate/Legal Services
- ❑ Government, Federal (including Military)
- ❑ Government, State or Local
- ❑ Health/Medical/Dental Services
- ❑ Retailer/Wholesaler/Distributor (non-computer related)
- ❑ Transportation/Utilities
- ❑ Communication Carriers (ISP, Telecomm, Data Comm, TV/Cable)
- ❑ Construction/Architecture/Engineering
- ❑ Data Processing Services
- ❑ Education
- ❑ Agriculture/Forestry/Fisheries
- ❑ Mining/Oil/Gas
- ❑ Travel/Hospitality/Recreation/Entertainment
- ❑ Publishing/Broadcast/Advertising/Public Relations/Marketing
- ❑ Research/Development Lab
- ❑ Business Services/Consultant (non-computer related)
- ❑ Mfg. of Computers, Communications, Peripheral Equipment or Software

Your job title/function:

IT MANAGEMENT
- ❑ CIO, CTO, CSO
- ❑ Executive VP, Sr. VP
- ❑ Vice President
- ❑ Director
- ❑ Manager/Other IT Manager
- ❑ Supervisor

BUSINESS MANAGEMENT
- ❑ CEO, COO, Chairman, President
- ❑ CFO, Controller, Treasurer
- ❑ Executive VP, Sr. VP, VP, General Manager
- ❑ Director, Manager
- ❑ Other Corporate/Business Manager

Number of employees in your entire organization (ALL locations):
- ❑ 20,000 or more
- ❑ 10,000 - 19,999
- ❑ 5,000 - 9,999
- ❑ 1,000 - 4,999
- ❑ 500 - 999
- ❑ 100 - 499
- ❑ 50 - 99
- ❑ Less than 50

What is your organization's annual IT/IS budget for all IT/IS products?:
- ❑ $1 billion or more
- ❑ $500 to $999.9 million
- ❑ $100 to $499.9 million
- ❑ $50 to $99.9 million
- ❑ $10 to $49.9 million
- ❑ $1 to $9.9 million
- ❑ $500,000 to $999,999
- ❑ $250,000 to $499,999
- ❑ $100,000 to $249,999
- ❑ Under $100,000
- ❑ None

What is the estimated annual revenue of your entire organization?:
- ❑ $10 Billion+
- ❑ $1 Billion - $9.9 Billion
- ❑ $500 Million - $999 Million
- ❑ $100 Million - $499 Million
- ❑ Less than $100 Million

The one item that best describes your involvement in the IT purchase process:
- ❑ Authorize/approve purchase
- ❑ Evaluate/recommend products, brands, vendors
- ❑ Specify features/technical requirements
- ❑ Set budget for expenditures
- ❑ Determine need to purchase
- ❑ Create IT strategy
- ❑ All of the above
- ❑ None of the above

What is your organization's MOST mission critical development/implementation project this year?
- ❑ Business Intelligence/BPM/Customer Analytics
- ❑ Data Management
- ❑ Mobile & Wireless
- ❑ Enterprise Infrastructure/Data Center Buildout/Consolidation
- ❑ Network Infrastructure/Storage
- ❑ Security
- ❑ Application Development and Integration (Web services/EAI)
- ❑ Compliance

What is your organization's SECOND-MOST mission critical development/implementation project this year?
- ❑ Business Intelligence/BPM/Customer Analytics
- ❑ Data Management
- ❑ Mobile & Wireless
- ❑ Enterprise Infrastructure/Data Center Buildout/Consolidation
- ❑ Network Infrastructure/Storage
- ❑ Security
- ❑ Application Development and Integration (Web services/EAI)
- ❑ Compliance

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COLLABORATING Angels

The Navy chooses Groove Networks technology to manage information critical to the delivery of humanitarian relief. By Linda Rosencrance

THE CHALLENGE for Cmdr. Eric Rasmussen, a U.S. Navy physician, was to find technology that civilian and military organizations could use to manage the flow of information regarding disaster relief efforts in less-than-ideal environments.

To find the right solution, Rasmussen put several products through their paces at Strong Angel II, a series of exercises designed to improve civilian-military collaboration during postconflict humanitarian operations.

Strong Angel II, held last summer in Kailua Kona, Hawaii, with participants from 20 military and civilian agencies, was intended to demonstrate proposed technological remedies to the collaboration problems hindering disaster relief efforts. Organizations involved included the U.S. departments of Defense and Homeland Security, the U.S. Central Command, the American Red Cross, NATO and the Coalition Provisional Authority for Iraq, as well as universities and hospitals.

According to Rasmussen, the secretary of defense asked him to solve problems that had been identified by a number of individuals and organizations during and immediately after the war in Iraq.

Previously, decisions about the allocation of humanitarian aid were based on a four-page paper form containing 312 pieces of information, says Rasmussen. The data included information about deaths and injuries, physical damage, medical supply needs, water and sanitation conditions, and the needs of refugees.

After the form was completed, it had to be physically carried by military personnel to operations centers, where the information was then entered manually into a database, often by Rasmussen. Only then could it be used to prioritize and match the needs in the field with supplies, people and other resources, he says.

Rasmussen needed communication and collaboration technologies designed to transfer critical, sensitive data from the field to operations headquarters quickly and securely in any environment.

After considering several products, including Documentum Inc.'s eRoom and IBM's Lotus Domino, he selected Groove Networks Inc.'s Virtual Office 3 for testing during Strong Angel II. A key reason for the choice was that the software uses a decentralized architecture, so it resides on users' PCs, not on a central server, says Rasmussen.

"Because Groove is a peer-to-peer application and has one server on which the data is hosted, it ends up being a kind of neutral ground — no one owns the data, no one owns the solution," says Robert Kirkpatrick, solutions architect at Beverly, Mass.-based Groove.

Encryption Needs

The tool also had to provide encryption because Rasmussen wanted it to be usable on any network, even in, say, an Internet cafe in downtown Samarra, Iraq. Groove uses military-grade 192-bit encryption, so all the information stored on users' PCs and sent across the Internet is secure, he says.

The software can send encrypted XML documents and messages between PCs via the Internet. If a user is behind a firewall, the software pushes the encrypted XML messages to a relay server, a store-and-forward router with a disk, where the XML packet is wrapped in HTTP and sent to the recipient's PC by tunneling through the firewall port that's open for Internet traffic.

If a user sends a message to someone who is off-line, the encrypted message is stored at the relay server and is then sent automatically when the person comes back online, Rasmussen says.

Because Groove is client software, not Web-based, all the tools and materials reside on the PC, so people can work off-line as well as online. When an off-line user reconnects to the Internet, the software automatically synchronizes, so everyone working in the shared space has up-to-date information, according to Rasmussen.

The tool also needed to have alerting queues so Rasmusseo would know about anything that changed anywhere in the system. And, he says, the software had to be free because there was no way to distribute licenses.

"We needed to be able to say, 'Go to this address on the Web, download it, and pick it up,' because Groove offered a 30-day trial — although we had to continue beyond that trial period," he says.

The product had to meet other operational requirements, including encryption of instant messaging and chat functions, secure voice over IP, and the ability to annotate maps and satellite images. "At that time, Groove was the only tool that met all of our criteria," Rasmussen says.

Strong Angel II had specialized requirements that only a tool like Groove could meet, says Peter O'Kelly, an analyst at Burton Group in Midvale, Utah. "They don't assume any kind of common infrastructure — they assume it's mission-critical, not like e-mail that works most of the time but sometimes doesn't, and not like some lightweight content-sharing system," he says.

Rasmussen and his team are investigating the possibility of deploying the Groove tools in Afghanistan. **51946**

AT A GLANCE

LEAN Machines

Companies that would like to implement lean manufacturing are looking to software vendors for more help in automating the process. By Marc L. Songini

LOTS OF COMPANIES talk about using supply chain management (SCM) software to enable lean manufacturing processes, but not many of them actually do it successfully. And those organizations that have embarked on lean manufacturing initiatives have learned that success comes slowly, in increments.

"[Lean manufacturing] is universally talked about but not universally practiced," says John Moore, an analyst at ARC Advisory Group Inc., a Dedham, Mass.-based consultancy.

Lean manufacturing is an attitude or philosophy, rather than a specific set of technologies. Its roots are in the competition between automakers in the '80s and '90s, when U.S. manufacturers looked to adopt successful Japanese practices. The lean methodology involves shaving down the amount of inventory a company has to carry, speeding up production and shipping cycle times, and reducing the number of workers performing manual tasks.

But for most companies — primarily discrete manufacturers — that are using lean techniques, the system is still manual and not supported by software, says Moore. ERP or SCM software products that are designed to automate lean practices aren't close to reaching their potential, he says.

The SCM software used for lean manufacturing is only about a half-decade old, says Moore, and some of the applications on the market are merely incrementally enhanced manufacturing resource planning tools that don't actually support true lean processes. Moreover, companies tend to roll out the software gradually, division by division, so its effect isn't felt as dramatically as it would be in a big-bang sort of implementation, says Moore.

Among the companies that do lean manufacturing is Phoenix-based chip maker ON Semiconductor Corp., which runs Version Six.One of i2 Technologies Inc.'s supply chain planning and factory planning applications, says John Mallon, director of supply chain solutions. Finding new ways to deploy the software and lean manufacturing methods is a permanent job, says Mallon, and he has a team devoted to continuous supply chain improvement. Last month, ON's analog division went live with i2's new multiechelon planning inventory tool. This application allows ON to decide where it is necessary to keep surplus inventories across its supply chain, says Mallon.

The tool allows ON to decide what sorts of raw supplies or subassemblies are needed at each stage of manufacturing. Typically, a supply chain is divided into various silos, such as one that handles wafers or another that manages die parts, says Mallon, and each silo has its own inventory levels. These levels have traditionally been set independently, but now the multiechelon software can consolidate the various views. It even allows staff to run simulations to devise ways of improving or changing the stocking levels.

The application can factor in historical information, such as supply variability and cycle times for manufacturing, and determine how to maintain the right mix of product for the lowest cost, he says. No specific i2 application addressed this need before Six.One, and ON had to collaborate with the vendor to create it.

Finding software that fits a company's specific needs is a common problem. "We've been a lean enterprise for many years but never had a software package to emulate it," says Jack Conrad, vice president of operations at Safetran Systems Corp., a division of Invensys PLC.

The Louisville, Ky.-based maker of railroad crossing equipment last April went live with Baan ERP software from Chicago-based SSA Global Technologies Inc. to help support just-in-time manufacturing and other lean processes. The software enables Safetran to automatically check actual inventory in the factory and do complex parts ordering without needing a planner to do the physical matching of demand with stock, he says.

The most difficult challenges for Conrad and his staff involved mapping the processes to the software and creating a consistent set of methods to employ, as well as reformatting the data from the mainframe application for use in the Baan ERP software. The data conversion proved to be a bottleneck in the implementation process, since a specialist had to do it manually. For its next step, Safetran plans to let customers and service representatives directly access the lean ERP backbone. He expects the system to deliver a return on investment within a year and a half.

Cascade Designs Inc. has had a long-term commitment to lean manufacturing. The Seattle-based outdoor specialty gear maker has been using ERP software from PeopleSoft Inc. (now owned by Oracle Corp.) since 1998. With the centralized operational information the system generated, Cascade was able to change the way it manufactures by linking production processes more closely to market demand, says CIO Ken Meidell. "We don't want to make something unless someone wants to buy it," he says.

Among other long-term results, the company this past fall closed one plant, saving $12,000 a month. In addition, inventory turns have increased by a third, and gross margins have improved by 2%.

A Citrix Systems Inc. thin-client system for accessing the ERP data immediately delivered an "incredibly detailed" understanding of the company's cost structure. Cascade rolled the suite out to subsidiary Mountain Safety Research Inc. in 2001 and to its Ireland-based facility in 2002. That same year, it added advanced shipping capabilities, which allow it to deal with complex orders.

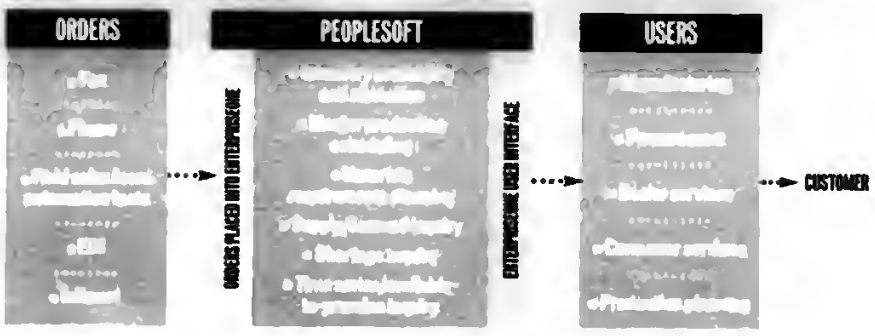
Cascade is planning an upgrade to EnterpriseOne 8.11, says Meidell. It also plans to extend the technology to suppliers and customers. "We're not done," he says. "We'll have them help us in achieving lean principles through the supply chain." 51828

The Skinny on Lean Manufacturing

- The aim of lean manufacturing is to reduce inventory levels and personnel through automated processes, thereby boosting productivity and forecasting accuracy.
- Most companies still haven't automated their lean initiatives.
- ERP and SCM software vendors that are active in the market include Oracle (PeopleSoft), SSA, i2, Manugistics Inc. and SAP AG.

CASCADE'S LEAN LOOK

Cascade Designs began a lean manufacturing initiative six years ago with its PeopleSoft ERP implementation. By linking production processes more closely to demand, Cascade's inventory turns have increased by a third, and gross margins are up 21%.



LEAN Machines

Companies that would like to implement lean manufacturing are looking to software vendors for more help in automating the process. By Marc L. Songini

LOTS OF COMPANIES talk about using supply chain management (SCM) software to enable lean manufacturing processes, but not many of them actually do it successfully. And those organizations that have embarked on lean manufacturing initiatives have learned that success comes slowly, in increments.

"[Lean manufacturing] is universally talked about but not universally practiced," says John Moore, an analyst at ARC Advisory Group Inc., a Dedham, Mass.-based consultancy.

Lean manufacturing is an attitude or philosophy, rather than a specific set of technologies. Its roots are in the competition between automakers in the '80s and '90s, when U.S. manufacturers looked to adopt successful Japanese practices. The lean methodology involves shaving down the amount of inventory a company has to carry, speeding up production and shipping cycle times, and reducing the number of workers performing manual tasks.

But for most companies — primarily discrete manufacturers — that are using lean techniques, the system is still manual and not supported by software, says Moore. ERP or SCM software products that are designed to automate lean practices aren't close to reaching their potential, he says.

The SCM software used for lean manufacturing is only about a half-decade old, says Moore, and some of the applications on the market are merely incrementally enhanced manufacturing resource planning tools that don't actually support true lean processes. Moreover, companies tend to roll out the software gradually, division by division, so its effect isn't felt as dramatically as it would be in a big-bang sort of implementation, says Moore.

Among the companies that do lean manufacturing is Phoenix-based chip maker ON Semiconductor Corp., which runs Version Six.One of i2 Technologies Inc.'s supply chain planning and factory planning applications, says John Mallon, director of supply chain solutions. Finding new ways to deploy the software and lean manufacturing methods is a permanent job, says Mallon, and he has a team devoted to continuous supply chain improvement. Last month, ON's analog division went live with i2's new multiechelon planning inventory tool. This application allows ON to decide where it is necessary to keep surplus inventories across its supply chain, says Mallon.

The tool allows ON to decide what sorts of raw supplies or subassemblies are needed at each stage of manufacturing. Typically, a supply chain is divided into various silos, such as one that handles wafers or another that manages die parts, says Mallon, and each silo has its own inventory levels. These levels have traditionally been set independently, but now the multiechelon software can consolidate the various views. It even allows staff to run simulations to devise ways of improving or changing the stocking levels.

The application can factor in historical information, such as supply variability and cycle times for manufacturing, and determine how to maintain the right mix of product for the lowest cost, he says. No specific i2 application addressed this need before Six.One, and ON had to collaborate with the vendor to create it.

Finding software that fits a company's specific needs is a common problem. "We've been a lean enterprise for many years but never had a software package to emulate it," says Jack Conrad, vice president of operations at Safetran Systems Corp., a division of Invensys PLC.

The Louisville, Ky.-based maker of railroad crossing equipment last April went live with Baan ERP software from Chicago-based SSA Global Technologies Inc. to help support just-in-time manufacturing and other lean processes. The software enables Safetran to automatically check actual inventory in the factory and do complex parts ordering without needing a planner to do the physical matching of demand with stock, he says.

The most difficult challenges for Conrad and his staff involved mapping the processes to the software and creating a consistent set of methods to employ, as well as reformatting the data from the mainframe application for use in the Baan ERP software. The data conversion proved to be a bottleneck in the implementation process, since a specialist had to do it manually. For its next step, Safetran plans to let customers and service representatives directly access the lean ERP backbone. He expects the system to deliver a return on investment within a year and a half.

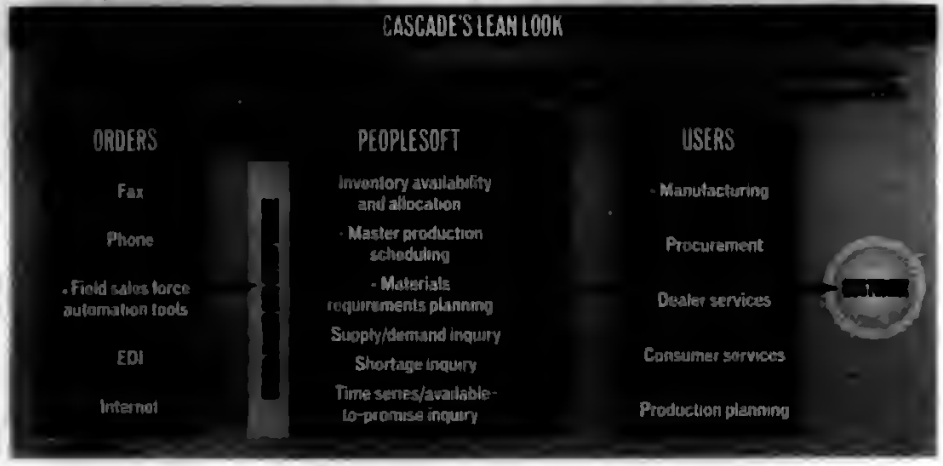
Cascade Designs Inc. has had a long-term commitment to lean manufacturing. The Seattle-based outdoor specialty gear maker has been using ERP software from PeopleSoft Inc. (now owned by Oracle Corp.) since 1998. With the centralized operational information the system generated, Cascade was able to change the way it manufactures by linking production processes more closely to market demand, says CIO Ken Meidell. "We don't want to make something unless someone wants to buy it," he says.

Among other long-term results, the company this past fall closed one plant, saving $12,000 a month. In addition, inventory turns have increased by a third, and gross margins have improved by 21%.

A Citrix Systems Inc. thin-client system for accessing the ERP data immediately delivered an "incredibly detailed" understanding of the company's cost structure. Cascade rolled the suite out to subsidiary Mountain Safety Research Inc. in 2001 and to its Ireland-based facility in 2002. That same year, it added advanced shipping capabilities, which allow it to deal with complex orders.

Cascade is planning an upgrade to EnterpriseOne 8.11, says Meidell. It also plans to extend the technology to suppliers and customers. "We're not done," he says. "We'll have them help us in achieving lean principles through the supply chain." 51828

CASCADE'S LEAN LOOK



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CMMI

Capability Maturity Model Integration (CMMI) is a way to assess and describe an organization's software development process, compare it against industry standards and help the organization refine and improve that process.

BY RUSSELL KAY

THINK BACK to the mid-1980s: The Cold War was still warm, and the U.S. Department of Defense was increasingly relying on computers for all aspects of its operations. The computers were puny compared with today's, and military computers had to meet stringent environmental and reliability requirements that made them even bigger, heavier and slower than civilian machines.

Graphical operating systems and applications were starting to appear, and most military software was developed by external contractors. The DOD badly needed a way to determine whether contractors could provide software on time, within budget and to specifications.

The answer came from Carnegie Mellon University's Software Engineering Institute. Its Capability Maturity Model was a way to assess and describe the quality of an organization's software development. First released around 1990, CMM was eventually extended to other process areas. In 2001, many disparate elements were brought together into a single initiative known as CMMI, or Capability Maturity Model Integration.

CMMI combines a carefully chosen set of best practices based on experience in a variety of disciplines, including systems analysis and design, software engineering and management. With CMMI, an organization can simultaneously tackle a range of improvements that would otherwise be addressed as free-standing initiatives. This, in turn, encourages improvement throughout the enterprise and helps organizations consider the full product development life cycle.

QUICK STUDY

CMMI comes in two basic flavors: staged and continuous. Staged CMMI is the better known, with its five levels of maturity (see diagram below). It enables comparisons between organizations and offers a proven sequence for improvement.

Continuous representation of CMMI lets an organization select specific improvements that best meet its business objectives and minimize risk, while perhaps making it easier to compare processes across projects and to transition from other quality standards. Both CMMI representations are designed to provide equivalent results.

Within each of the CMMI maturity levels, key processes are defined in five areas: goals, commitment, ability, measurement and verification. CMMI developers have defined a rigorous method to assess how well an organization meets the goals of each level. The Standard CMMI Appraisal Method for Process Improvement (SCAMPI) provides detailed ratings of strengths and weaknesses relative to the CMMI models.

SCAMPI was developed to help organizations improve their processes by setting priorities and focusing on improvements that match business goals. Many third-party organizations offer SCAMPI appraisal services.

CMMI is similar to ISO 9001, an international standard that specifies an effective quality system for software development and maintenance. The main difference between the two is that ISO 9001 specifies a minimal acceptable quality level for software processes, while CMMI establishes a framework for measuring continuous process improvement and is more explicit in defining the means to that end.

One unanticipated consequence of CMM development was that it gave a significant boost to software development outsourcing, particularly in the pre-Y2k period. Economic development agencies in India and Ireland, for example, have praised CMMI for allowing them to compete for U.S. outsourcing contracts. This has had a very positive effect on the employment of software engineers in Third World economies, but it has also adversely affected the high-tech job market in developed countries.

What CMMI Can't Do

CMMI was invented to help military officers quickly assess and describe contractors' abilities to deliver correct software on time, and in this regard, it has been a great success. But CMMI is not the answer for every organization. Its rigid requirements for documentation and step-by-step progress make it better suited to large organizations than to small.

But even most large, commercial developers that sell packaged software — including companies such as Apple Computer Inc. and Microsoft Corp. — rarely manage their requirements documents as formally as CMMI requires. And because such documentation is a requirement for Level 2, all of those companies would, if rated, rank on the maturity scale as Level 1, initial or ad hoc.

In particular, CMMI does not tell an organization how to implement improvements in software development — it merely indicates where they're needed. CMMI models are not themselves processes or even process descriptions. The actual processes an organization chooses depend on many factors, and the process areas of a CMMI model may simply not map one-to-one with those used in your organization. It turns out that the traits CMMI measures are, in practice, difficult to develop, even though they're easy to recognize. **51869**

Kay is a Computerworld contributing writer in Worcester, Mass. You can reach him at russkay@charter.net.

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CMMI's Five Levels of Maturity

BASIC CONTROL	PROCESS DEFINITION	PROCESS MEASUREMENT	PROCESS CONTROL	PROCESS OPTIMIZATION
Initial	Repeatable	Defined	Managed	Optimizing
■ This is the starting point for any new process. ■ Processes are ad hoc, chaotic and disorganized. ■ There are few formal rules or procedures. ■ Success depends on individual effort.	■ Processes are defined and documented. ■ Basic project management techniques track costs, schedules and functionality. ■ Successes can be repeated. ■ Specific implementations differ from project to project.	■ A standard software process meets the organization's specific needs. ■ Attention is paid to documentation, standardization and integration. ■ Projects follow this defined process, even under schedule pressures. ■ Management recognizes that these processes are the quickest route to completion.	■ Processes are predictable. ■ Detailed, quantitative measurements of process and product quality are collected. ■ Management can adjust and adapt the process to specific projects without losing quality or deviating from specifications.	■ Processes are continuously improving. ■ Processes are improved through quantitative feedback and shared ideas. ■ Managers introduce innovative processes to better serve the organization's particular needs. ■ Pilot projects are common.

CMMI

DEFINITION

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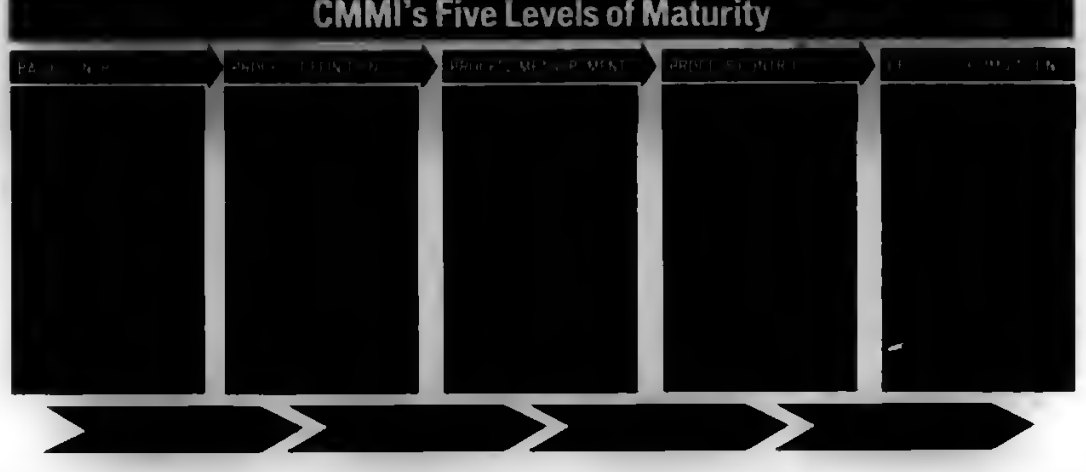

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Hollywood Legal Threat Leads to Detective Work

A letter from the MPAA charges that an employee has violated copyright law. Our security manager has to figure out who the culprit is. By Mathias Thurman

A LETTER from the Motion Picture Association of America led my group to do some technical sleuthing. We got our man, but his fate will be decided by our human resources and legal departments.

The MPAA is cracking down on the illegal distribution and downloading of copyright-protected movies. It sent us a form letter stating the date of a suspected infraction, the IP address of the computer involved, the name of the suspicious file and the suspected method of transfer (BitTorrent or Morpheus, for example). The MPAA apparently gets this information from third-party companies that comb the Internet looking for downloads of copyright-protected movies.

SECURITY MANAGER'S JOURNAL

My guess was that a movie file was being offered for download from a computer within our company or that a connection had been detected from our company to a file-sharing server that was being monitored by one of those third parties. In any event, the letter was very compelling, with its pointed references to federal statute, fines and even imprisonment if we didn't take "reasonable" measures to remove the data.

Needle in a Haystack

But before we could take reasonable measures, we needed to know which of our roughly 6,000 internal desktops was involved. The problem is that all of them appear to the public as that one IP address cited by the MPAA. That's because we use RFC 1918-compliant IP addresses via our DHCP servers. These are private IP addresses, reserved for internally routed devices. When these internal resources communicate with an outside entity, their IP addresses are translated to a single publicly addressable IP address.

To make matters worse, our DHCP leases expire every 48 hours, meaning that when those internal IP addresses expire every couple of days, most are likely assigned to someone else. We keep logs of IP address assignments, but not for very long, since they take up a lot of disk space. And by the time the MPAA's letter made it through the postal service and our mailroom and was delivered to the right department, several days had gone by.

The IP address flagged by the MPAA told us that the infraction had occurred at one of our smaller facilities on the East Coast. The first step was to contact our network engineering department to see if anything about network utilization looked suspicious, since a file-sharing program is typically left running all the time. At the site in question, the network engineer found over 30 users whose bandwidth utilization was excessive — over 2GB of data per day.

> **The letter was very compelling, with its pointed references to federal statute, fines and even imprisonment.**

Cornering the Culprit

We took some additional investigative steps, including running tcpdump to ascertain what type of activity was associated with each IP address. As it turned out, a good number of the users were developers who were transferring code from their desktops to the code repository server.

But a couple of users were engaged in activities that could involve copyright-protected files. One of these users was downloading large files, but they seemed to be family movies, since the names were along the lines of "Xmas-eve-party.avi." The other user's network traffic included the download of an .avi file for a newly released film. But which user was it?

The next step was to use the Nbtstat command to connect the IP address to a valid employee. Nbtstat (NetBIOS over TCP/IP Statistics) is a tool for discovering who is logged onto a networked PC. Issuing the command "obtstat-A" for a particular IP address returns a table with the remote machine's name and other identifying information.

We learned that the computer in question was being used by a desktop support technician who worked the night shift. Our company doesn't require a lot of desktop support at night, since the majority of our employees reside within the continental U.S., so this technician probably had a lot of free time on his hands.

I ran a utility called Winfingerprint (*http://winfingerprint.sourceforge.net*) to determine whether the user had any open shares. Sure enough, I was able to see several directories that the user had shared out, and within those directories were several movie and computer game files. One of them was the file referred to in the letter from the MPAA.

I cootacted the legal and HR departments to discuss the situation. Since the issue was technical in nature, they asked me to interview the employee by phone. My goal was to get him to confess to downloading the movie file in question, so instead of accusing him of doing that, I focused oo our concern that he might have been selling movies from a company asset.

Once he assured me that he wasn't selling the movies but was only watching them for his own pleasure, I was able to get him to confess to downloading the movie with the BitTorrent peer-to-peer file-sharing program. He said he didn't know that downloading the file was illegal, apologized and offered to remove all the questionable files from his system.

I instructed him to hold tight while an IT manager removed his hard drive and sent it to us so that we could obtain a mirror image.

The final step is for HR and legal to decide how to handle the situation. Reprimand? Termination? We'll just have to wait and see. ◗

WHAT DO YOU THINK?

This week's journal is written by a real security manager. "Mathias Thurman," whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com, or join the discussion in our forum: **QuickLink a1590**

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SECURITY LOG

Security Bookshelf

■ *Forensic Discovery*, by Dan Farmer and Wietse Venema (Addison Wesley Professional, 2004).

The authors, who are both well known in the information security field, provide beginner-to-intermediate-level information regarding data forensics. Concentrating primarily on the Unix operating system, they discuss a variety of methods for locating and interpreting forensic data within the Unix file- and kernel-level structures. I particularly found the chapter on kernel-level rootkits interesting, since the authors offer a useful explanation of this sophisticated type of malicious activity.

Readers will gain from the years of experience these authors bring to their discussions of various tools and techniques that are used to dissect a Unix operating system in order to determine details of an attack.

—Mathias Thurman

Worm Poses as Tsunami Aid Plea

Internet users were warned last week of a new mass-mailer worm that masquerades as an appeal for aid for victims of last month's Indian Ocean tsunami disaster.

The e-mail carrying the worm has a subject line that says, "Tsunami Donation! Please help!" The body of the message reads, "Please help us with your donation and view the attachment below! We need you!"

The attachment, labeled "tsunami.exe," spreads the virus to other Internet users, according to security firm Sophos PLC. Running the attachment file also launches a denial-of-service attack against a Taiwanese banking site called Hinchuchiu.Au, said Graham Cluley, senior technology consultant at Sophos.

BRIEFS

Citrix, SAP Release Joint Offering

■ Citrix Systems Inc. in Fort Lauderdale, Fla., and SAP America Inc. in Newtown Square, Pa., last week announced a joint product offering to provide small and medium-size businesses with remote access to SAP's accounting, sales, CRM and manufacturing software. The two will bundle SAP's Business One with the Citrix MetaFrame Presentation Server to provide remote access to the applications for companies with up to 250 employees.

Wyse Thin-Client Terminal Upgraded

■ Wyse Technology Inc. last week released a new version of its thin-client terminal. About the size of a paperback book, the Winterm S30 is 30% smaller than its predecessor and comes with the Windows CE 5.0 operating system, according to the San Jose-based company. Wyse said the terminal's performance has been boosted thanks to improvements in chips from Advance Micro Devices Inc. and upgraded RAM. Pricing starts at $399.

OpenVMS for Integrity Debuts

■ Hewlett-Packard Co. last week released a production version of OpenVMS 8.2 for its Integrity server line. It's the first production release of the operating system for the servers.

New ZipLip E-mail Archiving Software

■ ZipLip Inc. in Santa Clara, Calif., is expected to announce Version 5.0 of its Unified E-mail Archival Suite, with new features designed to help users comply with government regulations. Those features include attorney-client-privilege flagging and logs, according to ZipLip. The software costs $15,000 for 25 users.

DOUGLAS SCHWEITZER

Don't Ignore Lowly Log Analysis

EVER TAKE A LOOK at the computer security hardware and software products available these days? The number of them is staggering. They promise to (and for the most part do) help keep your workstations and servers secure. Nonetheless, although these routers, firewalls and intrusion-detection and -prevention systems spit out valuable information in the form of log files, too many organizations ignore or discard those logs.

It's unfortunate that log analysis is often overlooked as a vital part of an enterprise's computer security. While organizations may spend piles of hard-earned revenue on the latest and greatest in hardware and software, they continue to ignore the logs generated by those products. Sadly, hidden within those logs are nuggets of information that can prove invaluable.

One reason companies ignore logs is that the tools and knowledge for making use of the information they provide are often not available or are considered too cumbersome. Some log outputs may be innocuous, while others are critical.

According to Marcus J. Ranum, co-creator of *www.loganalysis.org* and chief of security at Tenable Network Security Inc., "System logs are one of the great overlooked resources in computing today. Folks spend lots of money buying IDS but don't look at their firewall logs — that's backwards! In fact, many organizations don't even turn on logging in their firewall (because of inaccurate concerns about 'performance'), which means they are losing an incredibly valuable resource."

It's not hard to see why security and network managers are apprehensive about logs. Log analysis can be a double-edged sword, mostly because it precludes security managers from ignoring certain security issues. To wit, "comparing firewall 'permit' logs with a blacklist of spyware sites can give a very illuminating — or horrifying — picture," according to Ranum.

Those in IT need to remember that logs aren't just security tools; they are also management and performance tools because they tell you if your link is reliable. Logs alert you if your system went down, then record when and for how long the interruption lasted. From a security standpoint, logs can tell you if your Internet link is largely used for file-sharing traffic or that more than three quarters of your desktops have been infected by spyware. These facts shed some light on the reasons behind avoiding log reviews. "If ignorance is bliss, actually looking at your logs may remove that bliss," says Ranum.

Vendors are noting this aversion to log analysis and are taking steps to reverse the trend. Currently, firewall vendors inundate users with the large volumes of log data their products generate. However, the next trend in security will be to try to streamline and simplify the processing of data contained within multiple logs.

Numerous tools are already available that can collect, correlate and parse log files. For example, DShield Universal Firewall Parser (*www.dshield.org/howto.php*) is a freeware program that will parse firewall logs from a number of personal firewall applications. The logs can then be sent to DShield.org for analysis and correlation. At the DShield.org site, you will be able to see how severe the attacks are, how many other users were attacked by the same sources and where the attacks originated.

Another handy freeware log-analysis program is RazorBack, which interfaces with the Snort open-source IDS. RazorBack provides real-time visual notification when an intrusion signature has been detected on a network. You can download RazorBack at *www.intersectalliance.com/projects/index.html*.

The bottom line is that learning to extract the data within your log files and analyze the wealth of information hidden in them will undoubtedly prove quite beneficial. Log analysis can serve you on a number of fronts. It can help generate evidence in case of an investigation, elucidate important statistics and even detect occurrences like network traffic bottlenecks or internal and external intrusions. Maintaining firewalls and IDSs is a great notion, but overlooking their logging features is not.

In the words of historian and Pulitzer Prize-winning author Daniel J. Boorstin, "The greatest obstacle to discovery is not ignorance — it is the illusion of knowledge." 51999

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COMPUTERWORLD

On the Mend
The mostly defunct B2B exchange concept is thriving in the health care industry, where automating and streamlining the supply chain could save hospitals millions of dollars. **Page 35**

WHO'S WHO IN IT
IT Emergency Room
Help desk manager Jimmie Price says his job is all about keeping people working, and as long as the pizza holds out, his team will always find a way to patch things up. **Page 36**

OPINION
IT Priorities for 2005
As the new year pulls IT managers in various directions, Barbara Gomolski offers five ways to stay focused on what's most important. **Page 40**

"Our people are our most valuable asset."

How many times have you heard that company slogan? But take a close look at how your human resources department is using technology to manage its labor force, and you may realize — as many companies have — that this old saw could use some sharpening.

In recent years, HR departments have focused their technology efforts on driving down costs by automating or outsourcing nonstrategic, transaction-oriented processes such as benefits enrollment and payroll. As a result, many employees can now do a number of things online that used to require the intervention of HR staff, such as viewing pay stubs, changing personal information or enrolling for benefits.

These types of systems have certainly helped to cut costs, in some

HR GETS Strategic

Once focused on cost cutting, today's human resources systems are all about gauging, growing and managing the corporate talent pool. By Mary Brandel

cases to the tune of 20% to 40%, according to Ed Jensen, a partner in the human performance practice at Accenture Ltd. But increasingly, HR is being urged not only to reduce the cost of hiring, retaining and compensating employees but also to optimize the corporate talent pool. After all, if your workforce is your biggest expense, shouldn't you shape it to best support the strategic goals of the business?

"More and more, HR is being called upon to be a strategic partner," says Joe Tonn, manager of HR management systems at Oregon Health & Science University (OHSU) in Portland. "We have to come to the table laden with data, with plans of where we're heading and where the organization should be heading."

OHSU is working on a Web-based recruitment system based on Oracle Corp.'s IRecruit and HRIMS offerings. So far, the system has helped the organization reduce the time it takes to fill a job vacancy from seven weeks to just over four. But more important, it will enable OHSU to move toward performing skills-gap analyses and succession planning.

For instance, Tonn is asking managers to list the top five or 10 competencies required to succeed in a variety of positions. The lists will be used to create a skill-matching system to refine the pool of candidates considered for these positions. Centralizing this information in HRIMS will also help OHSU track skills it has in-house and those it will need down the road, given normal attrition and turnover rates.

OHSU also plans to monitor the training courses its employees complete and document the new skills in the centralized repository. The school will also begin tracking its successful hires against the recruitment sources they came from, helping to determine where to put its advertising dollars.

A New Look

This new way of thinking — sometimes lumped into the general category of "human capital management" — requires HR to quit looking in the mirror and start looking at how it can boost the bottom line. "HR's own budget is 0.5% to 1% of the company's overall expense, whereas people are 70%," says Jason Averbook, CEO at Knowledge Infusion, a consulting firm in Danville, Calif. "They've been trying to decrease the cost of their own 1% expense rather than optimizing the 70% cost."

Managing human capital entails not only new ways of applying technology but also new metrics. As Averbook points out, if you spend $1 million on a training system, it's more important to show a 20% increase in sales or customer satisfaction than a reduction in transaction costs.

In the recruiting arena, instead of looking at how long it takes to fill the position, companies should track the effectiveness of the hire, Jensen says. "The question becomes 'time to proficiency' instead of 'time to fill,' " he explains.

How do you achieve this transformation? Vendors in the human capital management market would love to help you answer that question. They range from traditional ERP suppliers, such as PeopleSoft Inc., Oracle and SAP AG, to smaller vendors that focus on online recruiting, competency management, performance management, employee development or succession planning.

Easier Said Than Done

When it comes to improving human resources functions with technology, companies know what they want to do; they just haven't done it yet, according to the High Performance Workforce Study conducted by Accenture in July 2004.

The study queried 244 senior executives in six countries about factors affecting the performance of workforces and businesses.

Overall, only 19% said they were "very satisfied" with their HR function, but satisfaction increased at companies that effectively used IT to support HR and training initiatives, as well as at companies that frequently measured the effect of people-related investments. Only 9% said they leverage technology exceptionally well in support of HR, however, and 7% said they leverage IT exceptionally well to support training.

The most important HR initiatives, according to respondents:

- Improving worker productivity 86%
- Improving adaptability of business to new opportunities 86%
- Facilitating organizational change 86%

Respondents' degree of satisfaction with progress on these initiatives was low, however; just 12% said they were "very satisfied."

The most important training initiatives:

- Aligning learning strategy with business goals 77%
- Ensuring that learning content meets workforce requirements 75%
- Boosting workforce productivity and agility 72%

Again, respondents' satisfaction with progress on these initiatives was low; just 9% said they were "very satisfied."

While no one vendor can yet deliver a true end-to-end human capital management suite, companies are still better off building a system around a centralized database rather than stringing together products, says Craig Symons, an analyst at Forrester Research Inc. in Cambridge, Mass. That way, you can use business intelligence and analytic tools to mine the data you collect.

"Human capital management spans the entire employee life cycle and requires a holistic perspective, and very few organizations have that vision today," Symons says.

If you have multiple HR systems, experts recommend whittling them down to one. "You don't want to have 67 recruiting systems or 45 payroll systems. You want one gold standard where you're storing data," Averbook says.

A good second step is to align the skills you need with the skills you have and then start filling in the gaps, Averbook says. "Until you know what your employees do and don't know, it's impossible to tie your training dollars to investment," he explains.

Another classic application of human capital management is mapping performance management and employee education to business objectives. For example, Roche Diagnostics Corp., a research firm in Indianapolis, recently defined three competency categories across all of its divisions, as well as behavior competencies tied to those categories.

In a process that's separate from the performance review, managers and employees assess one another's performance in those categories. This information is fed into Roche's SAP-based HR system and tracked to determine the most appropriate training and development activities for each employee. The data can also be used for organizational development.

"We can sort the data at the department level so managers can see prevailing strengths and weaknesses to see if they need to do a group development activity or look for that capability in their next hire," says Patty Ayers, head of human resources at Roche.

This type of visibility into employee strengths and weaknesses can help companies pinpoint and develop potential leaders and even encourage those leaders to stick around.

"With this visibility, companies can proactively give top performers the types of roles and training to keep their career progressing forward," Jensen says. "Those are the kinds of things that are critical to retention."

Another advancement is targeted training in real time. "The future of learning is to embed it into your day-to-day business instead of having it be a separate event," Averbook says. For instance, at Nextel Communications Inc., a PeopleSoft-based system helps route a customer's call to an agent who has taken an online training course on that customer's phone model. If the agent who first answered the call hadn't taken the course yet, the system would have e-mailed him a link to get started.

Ah-ha Moments

Sometimes, human capital management projects take on lives of their own. At Medica, a large health maintenance organization in Minneapolis, it started with an overhaul of the company's cumbersome, spreadsheet-based performance review and goal-setting process. To automate this process, Medica chose a module from Softscape Inc. in Wayland, Mass.

But the ah-ha moment came when the HR department was implementing the system at the same time management was developing its strategic plan. "We said, 'Oh, we should tie these together,' " says Gloria Hoffman, human resources information systems payroll manager and HR business manager.

Now, job profiles flow into the performance management system, as do individual goals based on Medica's five strategic initiatives. "Everybody can see how their performance is linked to the overall Medica strategy," Hoffman says. Furthermore, by storing job profiles in a centralized repository, Medica can now identify and track skills needed for each job, which aids in succession planning.

Looking forward, Medica plans to integrate a module to identify competency gaps and tie them to development tools that can help employees grow, Hoffman says. This information can also be used to improve Medica's hiring process, she points out. If the company finds that people in a particular job tend to lack a needed skill, it can update the job profile to hire candidates who possess that skill.

Changing your HR system from transactional to strategic can take three to five years, but the important thing is to get started, Symons says, adding, "As we move from an industrial to a knowledge economy, it's not what you manufacture but what your people know that gives you competitive advantage." ● 51811

Brandel is a Computerworld contributing writer in Grand Rapids, Mich. Contact her at mary.brandel@comcast.net.

On THE Mend

Ailing health care supply chains are getting a boost from an unlikely source: B2B exchanges that survived the dot-com bust. By Gary H. Anthes

BUSINESS-TO-BUSINESS electronic marketplaces, often called B2B exchanges, were all the rage in the late 1990s. Every industry — retail, energy, automotive, air travel, even tiny niche trades — seemed to have one, often more than one. The idea was to harness the power and ubiquity of the Internet to bring together buyers and sellers in a standardized and efficient manner.

But the B2B fever waned after the dot-com collapse. Some exchanges disappeared; some downsized. Some now muddle along in obscurity.

Still, a few, such as Global Healthcare Exchange LLC in Westminster, Colo., have thrived. And in the supply-chain-challenged health care environment, B2B exchanges have the potential to save the industry millions of dollars annually.

GHX has 2,500 health care providers as members on the buying side and 175 vendors of medical supplies as members on the selling side. The exchange claims to have processed $3.5 billion in purchase orders in the first nine months of 2004, up 83% from the comparable period in 2003.

Central to its offerings are connectivity services, which allow medical facilities to order supplies electronically from vendors through GHX, and data cleansing and synchronization services, which allow buyers to standardize their supply data definitions across their organizations and verify them against vendors' data. GHX says discrepancies between vendor and buyer data, such as prices and product descriptions, cost the industry billions annually [QuickLink 50795].

Indeed, few industries seem riper for supply chain automation and standardization than health care. The industry wasted more than $11 billion in 2003 as a result of supply chain inefficiencies, according to *Healthcare Purchasing News* magazine. But supply systems at many health care providers get short shrift because of tight budgets and a management bias in favor of clinical, or patient, systems. B2B exchanges offer a way to wring costs out of the supply chain without investing much in IT, GHX users say.

Shortening the Cycle

"We've taken at least a day, and maybe two days, out of the supply chain cycle," says Paul McWhinnie, vice president of operations and information systems at LeeSar Regional Service Center, the purchasing and distribution arm for four Southwest Florida hospitals. "Before GHX, we'd fax or phone in an order, and if there were data entry errors at the supplier, we didn't find out for 24 hours. All that is gone. We get a confirmation back in minutes for most things."

Lehigh Acres, Fla.-based LeeSar uses GHX's ConnectPlus service to funnel purchase orders and order confirmations to and from 40 major suppliers. About 70% of order line items now go through LeeSar's ConnectPlus server. (The rest go to suppliers not on the GHX system.) That has reduced total order costs because LeeSar can consolidate orders across its four hospitals, and it has boosted fill rates — the percentage of time the order is filled correctly — from 96.5% to 98.5%. "We used to hit 98% occasionally before, but it was a lot harder to do that," says McWhinnie.

ConnectPlus and WebConnect, a Web portal purchasing service for smaller health care facilities, can substitute for slow, error-prone and labor-intensive telephone and fax ordering. For some users, GHX also replaces customized one-off electronic data interchange arrangements with individual suppliers. "Before GHX, it was up to [IT] to write individual interfaces to manufacturers for [EDI] purchase orders," McWhinnie says.

With ConnectPlus, GHX installs server hardware and application software at the customer's site. The software has built-in interfaces to most major health care material management information system packages, so most of these installations require little or no participatioo by hospital IT staffers, GHX says.

This minimal impact on internal systems has allowed some hospital IT shops to, in essence, outsource purchasing IT to their purchasing departments. Chicago-based Resurrection Health Care, which consists of eight area hospitals and a number of other health care facilities, put the ConnectPlus server in its purchasing department, not in its data center. "About all IS had to do is get an IP address for the server," says Ed Friese, director of materials systems.

Scrubbed Data

Because of the effect data quality has throughout the supply chain, data cleansing may well be the most valuable service provided by GHX, says Scott Tiazkun, an analyst at market research firm IDC. "With all these players, there's a great potential for poisoned data," he says. "If you don't have the basics down, all this infrastructure is for naught."

But the benefits of B2B don't always justify the costs — at least initially. Edwards Lifesciences Corp., a maker of cardiovascular products in Irvine, Calif., has about 5,000 customers, 500 of which order electronically. The balance use phone and fax.

The phone and fax orders are 10 times more expensive to process and are much more error-prone, says Carol Holt, vice president of customer operations at Edwards. But the relatively low volume of electronic orders has so far kept the initiative from paying off. "We really don't feel we are getting our money's worth yet," Holt says, "but we are working very hard to get there." Holt says she hopes to boost electronic ordering to 25% of all volume this year, at which point the economics would be more favorable.

Another problem, Holt says, is that not all electronic orders come through GHX. Some customers use a competing service from another survivor of the dot-com era, Neoforma Inc. in San Jose. "It's duplicative for us, and we don't like it," Holt says. "We all agreed we should have one exchange."

It seems unlikely that Holt will get her wish anytime soon. But GHX and Neoforma offer an integrated service by which hospitals connected to one exchange can do business with suppliers connected to the other.

Meanwhile, the health care industry as a whole isn't applying much pressure because top managers at most providers don't see their organizations as businesses. "They see themselves as first and foremost providers of patient care," and the IT priority for most of them is clinical and patient information systems, not supply chain systems, says IDC's Tiazkun. "But it makes a lot of sense to get that part of the house in order," he adds. "So gains in supply chain can help pay for electronic patient records." 51245

B2B Benefits

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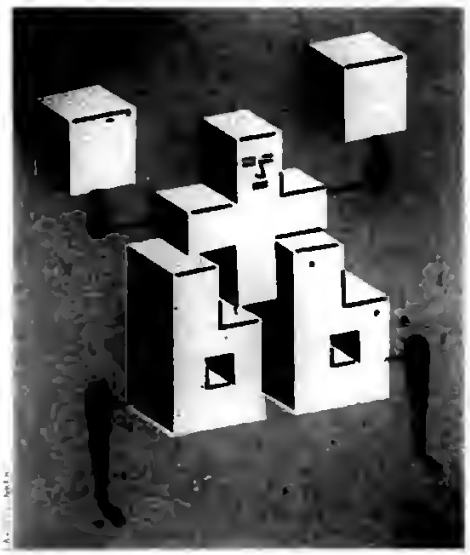

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IT Emergency Room

WHO'S WHO IN IT

Despite meager resources and middling respect, the help desk patches things up and gets people working again.

JIMMIE PRICE

Job: Help desk manager

Employer: Loomis, Fargo & Co., a banking services firm in Houston

Years in IT: Eight

Years in current specialty: Eight

I'm surprised that you don't have a fancy name for your job. Some people call it IT customer service or the computer support center or the IM resource center, but what people need is help. I have a list of 30 points I go over with everyone who works here. One is that *help desk* is not a dirty word. I don't want to spend energy on the name; I'd rather spend my effort on the job.

What is the most important contribution you make, and how do you make it? We help people get back to work, whether it's the CEO or a billing clerk. Computers are the tools they use to get their jobs done, and everything has a cascading effect. The billing clerk may be printing a report for the controller, who wants to send it to the division controller, who needs it for the division president to send to the CEO. When a problem is hampering somebody's ability to do the job, we facilitate getting people back to work.

What is the most important IT skill or aptitude you need to do your job? You need an understanding of the whole range of the IT world. People call us and say, "I can't print my report." We need to understand what is causing that to happen. Is the wall port at the printer dead? Is the network card on the printer dead? Is the person requesting the report incorrectly? The problem can be the PC, printer, software, infrastructure, training. We need a broad enough understanding to say, "This is where the problem is." It's sort of like being an emergency room doctor. People come in and say, "It hurts! It hurts!" We take it from there.

What is the most important soft skill or personality characteristic you need to do your job? Conveying a sense that we're teammates and [that] I give a darn, that I care and we'll get the problem solved. Perception is a large part of success in any service job. Customer satisfaction gurus tell you that most customers don't complain; they just go somewhere else. If people don't have confidence that when they call we'll get things done, they'll stop calling.

What is the biggest misconception about what you do? In a word: resources. We have a budget, a limited amount of stuff. People assume we can unload the world to solve their problem, and management assumes we can do it with two people and a few tools less. "You mean you don't have 20 people standing by to take my call on Friday night?" The answer is no. But that's not the customer's problem; that's my problem. That's why I get paid. And I'm not alone. It happens in every department in every company. But it happens to us, too.

What do you like best about your job? I like helping people. I believe that what we do is a good thing that benefits the company as a whole. I also like leading people, and I get to do both. I help manage a group of people who help people.

What do you like least? When we get dumped on. I've talked with people in other companies, and there's a mind-set out in some IT environments that support just happens. But it's the result of planning and organization and resourcing. If we're out of the loop, it makes us look dumb. After the 10th phone call you hear, "By the way, we rolled out a new application today." Support is often not included in the resources. They need so many programmers, hardware, software, but once it's in production, how many additional support people and tools will they need? That part is often left out of the equation. People realize it better now than they did eight years ago, but it's still common.

What should other IT people know about your role? That we're equal partners on the same team. Going back to the emergency room analogy, an emergency room can be like a zoo, and help desk can be like that. We patch them up and send them upstairs to the specialists — the developers writing code, maybe — where there's a calmer environment and they can do more-delicate surgery. But we're all on the same team.

What should business people know about your role? The relationship is a chain. Business determines the resources for help desk. Help desk uses these to help business people get back to work when weird things happen. If one end shortchanges the other, the results come back around. They need to understand we're all trying to accomplish the same thing.

What would enable you to do your job better? Unlimited resources. That's my dream: hire who I want and send a hit team of people wherever there's a hot spot to clean up a whole location. Get new equipment when we need it. Update outdated software at my command. But I know no matter how much I had, there would always be one more thing I'd want, because we can always do better. That's my fantasy. But in reality: more tools, more people and more pizza. Cut anything, but don't cut my pizza budget, because my people will do anything for pizza.

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How does the future look for your role? I feel pretty good about it. I am concerned about the increased trend toward outsourcing and offshoring of help desk and other IT roles. You can outsource someone to take calls, close tickets and provide gee-whiz reports, but you know, they say, "Figures lie and liars figure." If they're paid per call, do they want to reduce calls? If they want stats on closed tickets, do they want to solve the problem or just close the ticket? I feel any vendor will give you the reports you want to see. Getting someone to prevent problems and actually resolve issues and truly provide return on your investment is a different story. **50674**

Interview by Kathleen Melymuka.

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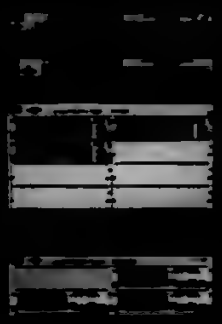
MEANS MORE POWER MORE AFFORDABLY.

ProCurve Networking by HP offers a range of affordable gigabit-enabled switches that is second to none. That means you can get better performance from your network along with better performance from your networking dollars. Downloads that used to take minutes can now be done in seconds. And you can do it for cents. Not dollars. That's high-availability gigabit performance at the edge—not just the core of your network. What's more, ProCurve gigabit-enabled switches are backed by a lifetime warranty*—perhaps the best in the industry. More affordability. More choice. More productivity.



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Career Watch

Less Is Worse

Contrary to what some people believe, employees who have too little work are actually less satisfied with their jobs than those who are burdened with too much work, according to a study by Purchase, N.Y.-based Sirota Consulting LLC, specialists in attitude research. The most satisfied employees in the survey were those who said they have just the right amount of work. They rated their overall job satisfaction at a 73 on a 100-point scale. Those with the second-highest satisfaction were those who have "too much work." The least satisfied were those who have "much too little work." The study included more than 800,000 employees at 61 organizations worldwide. Seventy-five percent have operations in North America, 11% in Europe and 14% in Asia.

JOB SATISFACTION RATING

Better Than Expected

CIOs expect a modest uptick in IT hiring in this year's first quarter, according to the Robert Half Technology IT Hiring Index and Skills Report. Eleven percent of executives polled said they plan to add IT staff early in the year, and 2% anticipate cutbacks. The net 9% hiring increase is up three percentage points from the previous quarter's forecast and six percentage points ahead of the year-ago projection.

IT HIRING PROJECTIONS FOR FIRST QUARTER 2005	INCREASE	DECREASE
U.S.	11%	2%
New England	5%	5%
Middle Atlantic	8%	3%
South Atlantic	10%	3%
Eastern North Central	11%	2%
Western North Central	9%	2%
Eastern South Central	8%	2%
Western South Central	12%	1%
Mountain	10%	2%
Pacific	16%	3%

FASTEST GROWING

- Networking
- Information security
- User support

MOST SOUGHT

- Microsoft Windows (NT/2000/XP) administration
- Check Point firewall administration
- Wireless network management
- SQL Server management
- Cisco network administration

Note: Multiple answers permitted

Maria Ozarowski Q&A

W[illegible] is a not-for-profit organization dedicated to the professional development of women in IT. Its biggest committee, Girls in Technology, supports academic and community programs that engage girls in technology- and computer-related learning. M[illegible], whose day job is director of technology adoption in the IT organization at Freddie Mac, chairs the program, which she has built into the most active at WIT. She talked with *Computerworld*'s Kathleen Melymuka about her work with girls.

Why is it still difficult to generate interest in IT among girls? Kids use computers every day, as a social tool with IM and e-mail and as a homework tool with search engines and research sites. Computers are basically a means to an end. However, there's a stigma attached to the technology behind computers. Girls show equal aptitude and interest in math and technology in the elementary grades, but starting in middle school, social factors begin to interfere. They view IT as "nerdy." Plus, for reasons not well understood, girls begin to question their abilities in technology related areas. They seem to become socialized that computers, like cars and machinery, are "guy things."

What are you doing to change things? Our Girls in Technology outreach initiatives tackle these challenges head-on. In the elementary and middle school grades, we support after-school technology programs where girls learn about IT through fun and challenging hands-on activities. At the high school level, we offer programs that include successful women in the IT field who act as mentors and role models, demonstrating that IT is "cool" and a way to for girls to become independent and self-sufficient women.

Are there certain IT career paths or IT skills that are particularly attractive to girls? For girls who are creative and artistic, Web development and graphic design may be of interest. But in general, all areas of technology can be attractive when positioned properly. What I tell girls, including my own daughters, is that no matter what their personal and career interests might be, they need to develop a sound understanding of, and appreciation for, computers and IT, because computers will touch every aspect of their lives.

Has the recent economic downturn and all the news about outsourcing and offshoring made your challenge tougher? Though young people are clearly concerned with the economy and availability of jobs in the future, they believe that they can be anything they want. The trick is to get them hooked on IT early and develop a sense of the many doors that IT will open for them in the future. **51809**

IT Exodus?

According to the 2004 IT Staffing and Compensation Guide, an annual report released by Meta Group Inc., 24% of the more than 650 companies surveyed indicated that IT professionals in the application development field were the most difficult to retain. Respondents also indicated high turnover among employees who specialize in security (13%) and those who hold networking job functions (13%).

IT staff salaries will increase by as much as 10% to 15% over the next three years, according to Meta researchers. As the economy improves over the next year, key IT employees will seek greener pastures with competitive employers, analysts say. To prevent a mass exodus of highly valued employees, CIOs will need to pay closer attention to their human capital management programs, including development, welfare and morale, recruiting and retention, and compensatory strategies such as performance-based incentives. (See related story, page 33.)

"The 'grass is greener' mentality must be dealt with head-on," says Maria Schafer, a Meta analyst. Meta suggests that IT organizations devise innovative retention strategies, such as providing more flexible work rules (e.g., job sharing and teleworking).

"As the economy heats up, so does the desire and incentive to seek higher-paying work and greater development opportunities," says Schafer. "CIOs must tackle this issue immediately, using a variety of tools to compete with competitor firms, or face a real workforce crisis in the months to come."

– *Kathleen Melymuka*

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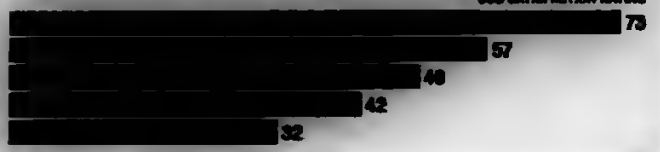

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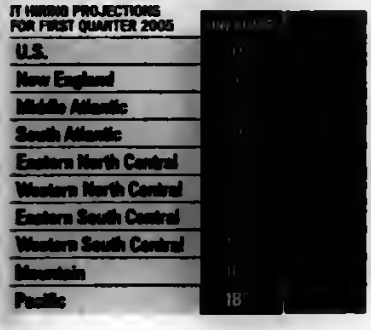
IT HIRING PROJECTIONS FOR FIRST QUARTER 2005



FASTEST GROWING

Networking 20%

Information security 13%

User support 11%

MOST SOUGHT

Microsoft Windows (NT/2000/XP) administration 46%

Check Point firewall administration 15%

Wireless network management 15%

SQL Server management 13%

Cisco network administration 13%

Note: Multiple answers permitted

Q&A

Why is it still difficult to generate interest in IT among girls? Kids use computers every day, as a social tool with IM and e-mail and as a homework tool with search engines and research sites. Computers are basically a means to an end. However, there's a stigma attached to the technology behind computers. Girls show equal aptitude and interest in math and technology in the elementary grades, but starting in middle school, social factors begin to interfere. They view IT as "nerdy." Plus, for reasons not well understood, girls begin to question their abilities in technology-related areas. They seem to become socialized that computers, like cars and machinery, are "guy things".

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IT Exodus?

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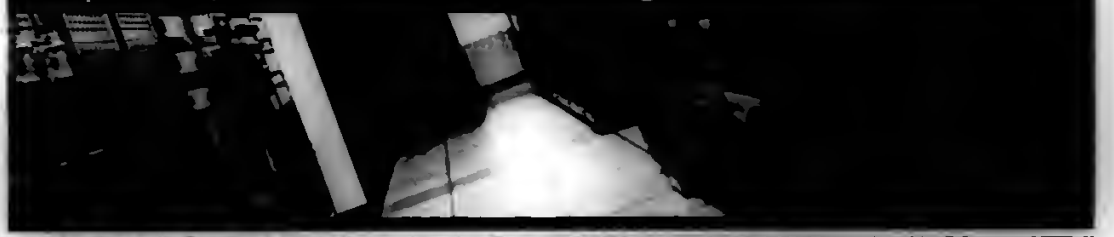

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EXEC TRACK

Freddie Mac Picks Witkins

Mortgage company Freddie Mac in McLean, Va., has named JAMES P. WITKINS senior vice president, technology. He most recently was a managing director for technology and operations at Fleet Boston Financial Corp. Prior to that, he was a director in the corporate business banking division at Barclays Bank PLC and had a long career at Manufacturers Hanover Trust Co. and Chemical Bank.

Wyndham Appoints Mark Hadley CIO

Wyndham International Inc., a hotel and resort company in Dallas, has named MARK F. HEDLEY executive vice president and CIO. He will be responsible for driving strategic technology initiatives throughout the company and overseeing casino gaming operations in Puerto Rico. Hadley joined Wyndham as chief technology officer in 2000. Previously, he held management positions at Sun International North America, Caesars World Inc. and ITT Sheraton.

Barretta Named CIO

JACQUELYN BARRETTA has been named vice president and CIO at CNF Inc., a global supply chain services company in Palo Alto, Calif. She was most recently vice president of information services for Con-Way Transportation Services Inc., CNF's largest operating subsidiary. She will be responsible for merging the IT and services of CNF, Con-Way and Menlo Worldwide into a single operating entity. Previously, she held positions at PacifiCorp Inc., Deloitte & Touche LLP and Duke Energy.

Tele Atlas Taps Radloff as CTO

Tele Atlas, a provider of digital map data and location content in Lebanon, N.H., named BRUCE D. RADLOFF CTO. He most recently served as CIO and CTO for General Motors Corp.'s OnStar division.

BARBARA GOMOLSKI

IT Priorities For 2005

THIS IS A GOOD TIME to consider IT management priorities for the coming year. Prioritization is key for IT managers, since there are so many directions in which they may be pulled. Often, IT managers get distracted by noble efforts that turn out to be dead ends or should have been delegated to others.

Obviously, all organizations are different, and your priorities will be affected by what's going on in your organization. However, these are the factors that I think are most likely to affect your priorities in the coming year.

1. The evolution of the CIO into an executive leader. This is certainly not a new thing, but it continues to be a significant issue for IT leaders. It's clear that in most organizations, successful IT executives are those who focus on business issues and organizational change management — not just technology management. We know that many IT (and business) projects fail to deliver value to the organization. Often, this is because people in the organization struggle with the changes associated with new technology. For instance, you may build and deploy a CRM system, but the project will succeed only if the organization's sales force uses the system. Companies are looking to IT managers to help prepare them for the changes associated with IT initiatives. This means that IT managers will be asked to assume more of a leadership role in their companies.

Action item: Sharpen your communication skills and bone up on change management processes. (See "Leading Change," QuickLink 51175.)

2. A sharper focus on business processes. Companies are starting to realize that their business processes are assets. Some are going so far as to create the position of chief process officer. Others are looking to IT leaders to expand their roles in this area. At a minimum, the renewed focus on business processes presents a career opportunity for IT managers. Often, IT-oriented process models, such as ITIL and Cobit, represent good entry points for IT managers who wish to take on a more process-centric role.

Action item: Consider how you can improve the business-process discipline within IT and the business at large.

3. The demands of compliance. Regulatory compliance efforts, such as those required by the Sarbanes-Oxley Act, represent a significant deployment of IT and business resources. In the coming year, companies will continue to form ongoing compliance processes, dividing roles and responsibilities between IT and the business. Smart IT leaders will be proactive about this activity, since it's critical to the long-term success of the company.

Action item: If you don't already have a good working relationship with the CFO, foster one.

4. The challenges of a multisourced world. Many organizations have aggressively pursued outsourcing in order to save money, improve IT service delivery or both. In the coming year, many IT leaders will focus on how to manage and continue to improve IT service delivery in this multisourced world.

Action item: Consider how governance, performance management and IT service delivery can be optimized in a multisourced world. In particular, look at the processes and tools that are used to manage vendor contracts and relationships.

5. The mandate to run IT like a business. This is also not a new thing, but it continues to grow in importance. This issue encompasses a lot of areas, but what I'm really getting at here is the need for IT to move up the evolutionary ladder. In other words, IT leaders will need to continue to sharpen their skills for managing people, assets and finances. The days of underused infrastructure and misaligned staff are quickly disappearing.

Action item: Begin with one functional area or service, such as e-mail. Look at the costs, utilization and performance of that service. Determine how to optimize it and how to communicate and market its value to the rest of the organization.

These issues certainly aren't the only things that will be important in the coming year, but they are among the most important. Interestingly, none of the challenges above is completely based on technology management. All of them require IT leaders who are as comfortable in the business arena as they are with technology.
51001

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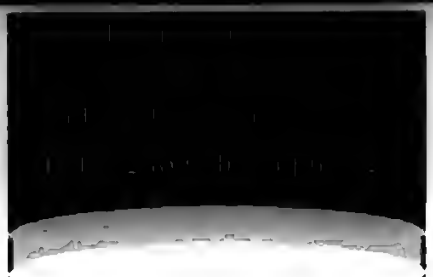

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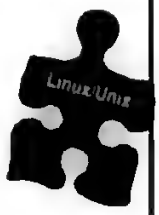

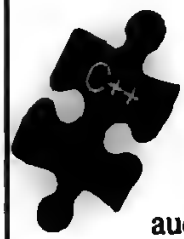

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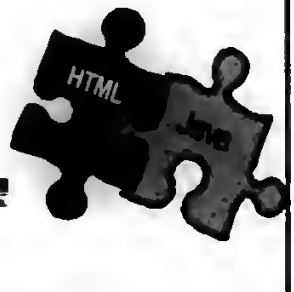

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RFID

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Charron predicted that Liz Claiborne will use RFID technology in three to five years, once the hardware and the applications are refined and the costs come down. He said it's a "beautiful concept" to be able to pinpoint the location of all of the items in a company's inventory "simply by looking in a computer." But, Charron added, "who wants to be a beta site for this?"

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At the case level, the read rates have exceeded 90% for cases on stocking carts, 95% in simulated mode on conveyers in distribution centers and 98% in trash compactors in the back rooms of stores, Dillman said. The main area of difficulty has been reading RFID tags affixed to individual cases on fully loaded pallets. Although Wal-Mart is averaging 66% read rates there, "that's much higher than we thought we'd achieve," Dillman said.

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On the business process front, Wal-Mart has been able to eliminate most questions about the accuracy of shipments between distribution centers and stores. "Our distribution folks love RFID for that reason," Dillman said.

In addition, Wal-Mart has been able to inform stores about merchandise in their back rooms that needs to be moved to the retail floor.

"It's easy to beat up on Wal-Mart because they really have sort of forced much of this initiative forward," said Scott Langdoc, an analyst at AMR Research Inc. in Boston. "But quite frankly, the entire retail industry is going to benefit from a lot of their learning."

For now, with the cost of RFID tags and readers still high and the technology and standards still evolving, many retailers said they're content to watch from the sidelines.

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Tesco Adopts Measured Approach to RFID

NEW YORK

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Tesco isn't interested in tagged pallets and cases at the moment, said Colin Cobain, the retailer's IT director. He noted that the technology isn't yet able to read all cases on a pallet. And Tesco doesn't have conveyor belts in its distribution centers, which would allow the tags to be read more easily, according to Cobain.

"I'm a great believer in 'Do what you can do, and don't worry about what you can't,' " he said during an interview at the National Retail Federation's annual convention here. "There's a lot of fuss being made about the cases that you can't read. So what? Don't roll those out then."

Another reason Tesco is postponing the use of RFID technology for pallets and cases is because "suppliers haven't really figured out their business cases within their operations yet, and we don't want to add costs to the supply chain, because at the end of the day, customer will pay it," Cobain said.

He instead looked for areas where he thought Tesco could reap immediate benefits from RFID tags, which he prefers to call "radio bar codes," and where the technology would perform well.

One Tesco pilot involves putting RFID tags on DVDs and electronic games in two stores. Cobain said benefits quickly became apparent, since fewer items were stolen and workers were more productive because they knew exactly where to find products. Plans call for Tesco to expand the rollout to 10 stores by midyear. But with that area of the business growing, the project won't produce a payback until the tags can be applied automatically, he added.

Tesco's largest RFID project, called Secure Supply Chain, involves tagging blue plastic containers stacked on wheeled dollies that the company uses to deliver "high-value" goods picked in its distribution centers to stores. The retailer has rolled out the technology to 14 stores and one distribution center, and by the end of this year expects to be live in more than 1,400 stores and over 30 distribution centers, according to Cobain.

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For now, Tesco's major RFID projects don't rely on supplier participation, and Cobain said that at the moment, "it's not at the top of my priority list" to mandate it.

– Carol Sliwa

MORE ONLINE

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RFID UPDATE

Wal-Mart CIO Linda Dillman disclosed the following data about the retailer's RFID initiative:

- **RFID technology has been installed at 104 Wal-Mart stores, 36 Sam's Club stores and three distribution centers.**
- **The rollout includes 14,000 pieces of hardware and 230 miles of cable.**
- **57 suppliers are live with the technology.**
- **Wal-Mart has read a total of 7,161 pallets and 210,390 cases with RFID tags.**

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BPA ABM

FRANK HAYES ■ FRANKLY SPEAKING

Migration Miracle

LET'S SAY LARRY ELLISON IS RIGHT. Suppose Oracle does hold on to PeopleSoft and J.D. Edwards users by finding a way to let them migrate gracefully to a best-of-all-worlds merged product that's now code-named Project Fusion and is supposed to be ready by 2008 (see story, page 1).

How will Oracle do that? Nobody knows. It's never been done. Today, ERP migration is hard and painful. Making it easy will require a huge leap forward in migration technology.

But what if Oracle is serious about this and it really happens? Then things get interesting — and not just for PeopleSoft users.

After all, Oracle does have tools that let users upgrade pretty smoothly from one point release to the next. That's a far cry from moving PeopleSoft users to what will be a future version of Oracle 11. But it's a start. Maybe within the next few years Oracle *can* create tools that make this "not a conversion — an automated upgrade," as Ellison calls it.

Then what? Oracle's competitors will have to match Oracle technology for technology — and that includes migration tools.

Sure, they're already courting PeopleSoft customers. Microsoft is offering incentives and consulting to PeopleSoft users. SAP is telling them that its new Safe Passage program will guarantee future PeopleSoft support and include a trade-in credit of 75% of the original PeopleSoft purchase price. But those offers will be a joke if Oracle makes migration from PeopleSoft truly easy.

In fact, if Oracle can pull it off, you can bet it won't stop with PeopleSoft users. For example, Oracle could build on that migration tool to create an automated SAP-to-Oracle easy-migration tool. That would demolish SAP's customer lock-in and give Oracle an insurmountable advantage in the market.

But if Oracle can do it, so can the others. They don't really have a choice. The migration technology bar will have been raised. If one vendor makes it over, others that want to survive have to make it over, too — and they all know it.

And you thought this was just about those poor, stranded PeopleSoft users, didn't you?

Actually, if this turns out to be reality and not just so much happy talk to mollify the PeopleSoft ranks — and that's a big *if* — then it's not just PeopleSoft users who are in play. It's SAP users. And Oracle users. And customers of every other ERP vendor.

If migration becomes easy, lock-in goes away. Customers will move when they want to. Vendors will have to work a *lot* harder to keep customers happy. Otherwise they'll migrate — easily, painlessly, gracefully.

Does that sound too good to be true? It probably is. Look at the calendar: Oracle says the last major upgrades of PeopleSoft and J.D. Edwards products will be next year. After that, the clock is ticking until those users have to migrate to Project Fusion, which will nominally arrive in 2008, though no one expects it to be the real deal until, say, 2010.

That's five years, tops, for Oracle to work a technology miracle in migration. Yes, it could happen. In IT, the previously impossible happens regularly — and things that were apparently easy fail to happen just as often. Oracle might succeed brilliantly. Or Oracle might screw up the whole works. Or Oracle might just be blowing smoke.

So if Larry Ellison is wrong, PeopleSoft users face a long, difficult transition — whether it's to Oracle's Project Fusion or something else. That means it's time to start looking around for the best fit. If you have to suffer through the misery of a migration, it might as well be to the product that best meets your needs.

And if Ellison is right, we *all* should start looking around for the best fit. Oracle's hoping to hold on to those PeopleSoft customers with a migration miracle. But if Oracle succeeds, no ERP vendor's grip on customers will ever be tight again. 52059

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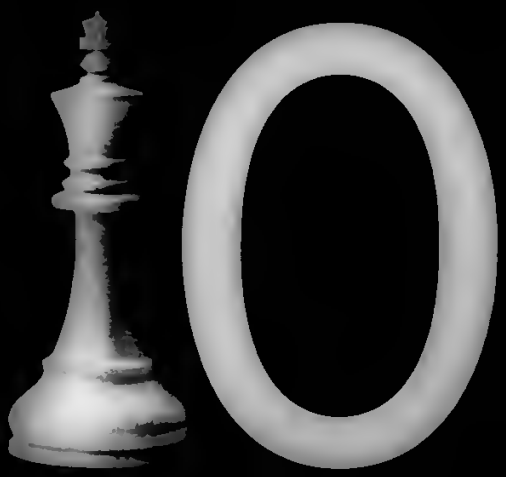

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